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LAME LAMBS
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Introduction

Under the above title might be included several different conditions found in lambs here in this State. In Eastern Oregon the lambs on range suffer from a lameness that is commonly called a stiffness. Such lambs are known as stiff lambs. Here in the Willamette Valley and in Southeastern Oregon are found lame lambs that really are more stiff than lame. Willamette Valley sheepmen every year, however, have experiences with lambs that might truly be spoken of as lame lambs. This trouble is often spoken of as lamb paralysis but in very few, if any, of the cases does a true paralysis exist.

This spring, as in past years, some time was spent in studying this condition. Attempts were made to determine the cause or causes and considerable time was spent in the field studying conditions under which lambs were being handled. This work was carried on as service work as no project money has been available for it.

Prevalence

This trouble began early in the Spring and in spite of an excellent lambing season many reports of trouble were received. The first cases reported were in March and from then on until the last of April such reports were almost of daily occurrence. The western counties seemed to be the only ones reporting trouble and apparently this year the trouble was more serious west of the Cascades than east.

Cause

It has been thought for many years that such lameness in lambs was due to infections gaining entrance to the body through navel or docking and castration wounds but only in recent years has this been proven. Since 1931 Marsh in Montana and Haworth in California have found the swine Erysipelas organism responsible for a lamb lameness.

With thoughts in mind of finding this organism in Oregon lambs some bacteriological studies were made. The first attempts to isolate an organism met with failure but another attempt resulted in the isolation of a pus-producing organism in pure cultures. This organism - a staphylococcus - proved to be pathogenic for rabbits and guinea pigs. Although it did not produce lameness in these animals it did produce abscesses containing pus very similar to that found in the infected wounds of the lambs examined. Pus from an abscess in the lamb from which the pure cultures were obtained produced lameness in a six-weeks old lamb when injected intravenously. Pus from the same abscess failed to make another lamb lame when injected into the tissues of tail stub.

Abscesses were produced which contained pus similar to pus obtained from other lambs.

Reports indicated this trouble was very probably involved more with the wounds made at docking than with infections of the navel or castration wound. Sheepmen reported no new cases after the application of pinetar and an antiseptic to the docking wounds, while others thought possibly the trouble was due to the use of turpentine. One case developed in the department experimental flock which recovered when the infected docking wound was treated. Sheepmen reported treatment was followed by recovery in many cases. Because of the many fly-blown cases in sheep this Spring it was thought that possibly the fly had something to do with the spread of the pus-producing organisms. No opportunity was had to determine this, but when a fly repellent was applied to the docking wounds the trouble stopped. Flies were unusually bad all winter, no doubt due to the mildness of the winter months.

Symptoms

The symptoms were chiefly those of lameness. This seemed to vary in many ways. Some were lame in only one hind leg, others were lame in both hind legs but would still have the ability to stand and walk. Many would move about on their knees, while others seemed to be chiefly lame in the back. Some of these lambs remained in good condition despite the fact that moving was painful. In most cases losses occurred as a result of lambs being destroyed because of their helplessness. The great majority of the lambs having enlarged joints failed to develop properly regardless of care.

Three lambs were examined that had small pustules in the skin near the base of the tail and one had this condition of the skin in the region inside of the flank. The pustules contained a pus very similar in appearance to that obtained from abscesses found in other parts of the body.

Some temperatures were taken but in all cases they were not high, as compared to temperatures of supposedly normal lambs. One that had been injected intravenously and become lame had a temperature of 104.9 and 105, while the average temperature of fifteen normal lambs average 104.1. These temperatures compare very favorably with supposedly high temperatures taken of so-called stiff lambs on the range. As in the arthritis caused by the swine erysipelas organism, temperatures remain normal.

Because of the pain resulting from movement lambs are down a good share of the time and will be found eating the grass within easy reach. Atrophy of unused limbs follows and usually remains throughout the life of the lamb.

One lamb showed marked nervous symptoms.

Lesions

Quite a good many of these lambs have been brought to the laboratory

for diagnosis. In six out of nine recently autopsied pus was found in the spinal canal. One of these cases had large abscesses at its hock joint, one had a large abscess on its neck and a third had an abscess in the roof of the pelvic cavity. All of these abscesses had direct connections with the spinal canal. In one case the pus could be found as far forward as the second cervical vertebrae. In nearly all cases pus could be found in either the spinal canal, the stub of the tail, or the castration wound. The pus in most cases had a greenish color, although in some cases it was a dirty gray.

Control

Measures of control were not carried out experimentally except in two cases. One of these recovered from the lameness when the docking wound was treated with iodine. The other recovered without treatment. Sheepmen reported very few losses when infected wounds were treated and flies repelled by the use of pine tar.

Information gained would indicate the need for care in the docking operation. Marsh of Montana reports best results in preventing their lame lamb trouble following the use of a hot iron. Such a wound would be slow to heal but might sear blood vessels so as to prevent their use as an avenue of infection by the pus-producing organism. Since the fly apparently has something to do with the spread of the organism anything that would repel flies would be indicated, Pine tar being the choice of most sheepmen.

Lambs should be examined four or five days after the docking to see if infection is present. If pus exists under a scab the scab should be removed and tincture of iodine applied.

Regardless of the instrument used in performing the operation the operator should be as clean as possible. A knife could be boiled and the operator's hands washed several times during the time necessary for docking a hundred or so lambs.

Conclusion

More work will be necessary in order to be sure other organisms are not also responsible for the lame lambs found each year. It will also be necessary to reproduce more typically the disease with the organism already isolated which was identified by the Division of Pathology, Bureau of Animal Industry as Staphylococcus aureus.