THE NEW ZEALAND
JOURNAL OF AGRICULTURE

Vol. 63. No. 5.
November 15, 1941.
Wellington.

Published by direction of Hon. J. G. Barclay, Minister of Agriculture.

Guard Against

BLACKLEG IN SHEEP

Blackleg in sheep, due to *Clostridium chauvoei*, is becoming prevalent in all districts. Prevention is possible by vaccination, and advice is available from officers of the Department of Agriculture in the control of the disease.

By
M. B. BUDDLE,
Veterinary Research Officer, Animal Research Station, Wallaceville.

BLACKLEG in sheep differs from the disease as seen in bovines, in that it is usually evidenced as a gas gangrene infection following injuries at shearing, dipping, or from dog bites, or following parturition in ewes or the operations of castration and docking of lambs. In the past, farmers have recognised the disease as blood poisoning.

Observations over the last few years have indicated that true blackleg is apparently widespread throughout New Zealand, and it has been observed in districts where the disease has not been reported in cattle. Even on the same property, some paddocks are notoriously more dangerous than others, due apparently to the heavy contamination of the soil with the casual organism on these areas.

Often, symptoms are entirely overlooked until animals are found dead two to three days following the operations of castration and docking, shearing, or following lambing, but if the animals are more closely observed, they may be seen to exhibit the symptoms one would expect from an acute wound infection with subsequent blood poisoning. The animal ceases to feed and to ruminate, remains apart from the flock, and exhibits accelerated respiration. The course of the disease is very rapid; the animal is soon unable to stand and becomes comatose, and death quickly supervenes. Recovery from the disease is very rare.

Post-mortem Examination

Putrefaction sets in very rapidly after death, and an examination of the internal organs a few hours after death reveals advanced decomposition. Gas formation in the musculature appears to be a variable feature, but the muscles in certain regions, such as the thighs, under the tail, the forearms, or the facial region, are darker in colour than normal, and in some cases they may be of a drier consistency, or there may be an excess of blood-stained fluid in the subcutaneous and intermuscular tissues. A constant feature, if the examination is made shortly after death, is a peculiar sour odour from the discoloured musculature.

A similar disease is described in sheep as *malignant oedema*, which is identical clinically and pathologically with ovine blackleg, but a different bacterial causal agent is considered responsible. Thus, it is necessary to have conducted a bacteriological examination on a specimen of discoloured musculature from a recently dead animal. It is particularly important in the diagnosis of blackleg that the specimen should be as fresh as possible, as bacteria from the intestines quickly invade the carcass after death and may obscure the true causal agent of the mortality on bacteriological examination. The organism causing *malignant oedema* is frequently a post-mortem invader in animals dying of other diseases, and as its growth is more rapid than the organism responsible for blackleg, the examination of material from an animal dead for some hours may give an erroneous diagnosis of the primary causal agent.