

COBALT DEFICIENCY IN SHEEP

By

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Is Monthly Drenching Effective?

TOPDRESSING with cobaltised superphosphate is now widely recognised as a convenient and effective method of preventing "bush sickness." Where autumn topdressing of pasture is practised, the application of 5oz. of cobalt sulphate (this amount is present in 1cwt. of cobaltised superphosphate of the 6lb. cobalt sulphate to the ton grade) per acre with the annual topdressing proves 100 per cent. effective, and no other method of control need be sought.

There are, however, some areas where, for various reasons, regular topdressing is not practised. Here, cobalt must be supplied in some other way, and the most usual method is to allow free access to cobaltised licks. This is quite satisfactory if the sheep eat adequate quantities of the lick. A suitable lick may be made by mixing 1oz. of cobalt sulphate with 4cwt. of salt and 1cwt. of linseed meal. On "bush sick" country 100 sheep would require to eat about 7lb. of such a lick each week to obtain sufficient cobalt to keep them healthy. Unfortunately it is often difficult to get sheep to eat a lick, and even where the majority take it readily, a significant percentage either neglect it altogether or else eat very small quantities, and these naturally become "bush sick."

Drenching Trials

Because of this difficulty with licks, drenches have often been considered as a means of supplying cobalt. It has been quite definitely established that drenching regularly with cobalt at short intervals will both prevent and cure "bush sickness," but this is not convenient with large numbers of sheep, and farmers have often inquired whether cobalt would be effective if given at monthly intervals. To settle this question, Dr. C. S. M. Hopkirk conducted some drenching trials on a

"bush sick" farm at Arohena between November, 1936, and April, 1937 ("New Zealand Journal Agriculture," 54, 6, 344).

Ewes with lambs at foot were divided into four groups. One of these received no treatment, while the others were drenched with cobalt sulphate solution. The doses were so arranged that in all of the treated groups each ewe received 6 milligrams (mgs) and each lamb 3 mgs. of cobalt per month. (One ounce of cobalt sulphate contains about 5,600 milligrams of cobalt.) The total monthly amounts were divided into drenches, which were given at the following intervals:—

Group 1: Ewes twice weekly; lambs once weekly.

Group 2: Ewes and lambs once weekly.

Group 3: Ewes and lambs once monthly.

The results indicated that although the ewes and lambs which were drenched monthly remained alive the lambs grew at only half the rate of those drenched every week. Some ewes and lambs which became "bush sick" in the control group were also treated with the monthly drenches, but the results were not very satisfactory.

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