

health and constitution and neglect the working of the internal organs. Therefore if an animal is found to be more susceptible than others to this disease she should be discarded, as susceptibility is undoubtedly hereditary.

It will have been noted from the foregoing remarks that the actual determining factor in redwater here is of dietetic origin. This is borne out by the well-established fact that immediate change of food alone acts as a prompt remedy, and that when the trouble is not too far advanced such change is all that is required.

SYMPTOMS.

As the term "redwater" implies, this discoloration is generally the first sign observed that anything is wrong with the animal. If, however, the trouble had been suspected earlier it would have been found that the animal was showing a touch of fever with a rising temperature, palpitation of the heart, and indications of diarrhoea. Later on, and often within a few hours, the urine discharged is of a dark-red colour with a peculiar offensive odour, and which on falling upon the ground produces an unusual amount of froth. The same odour may be detected in the breath, and even sometimes from the skin. Constipation now usually sets in, and all the symptoms already noted become exaggerated. The visible mucous membrane is pale, and the general appearance of the animal is that of great depression. If the vulva be examined its appearance is found to be peculiar, being of a dull leaden hue.

Very rarely discoloration of the urine may be observed due to other causes, such as internal injury after calving or injury over the back, but in such cases the colour of the urine is of a brighter red with all the appearance of diluted normal blood.

TREATMENT.

It has been demonstrated by practical stockmen that a change of feed is the first measure towards bringing about a cure. The next in importance is the administration of a laxative; this must be efficient, because in my opinion the accumulation of deleterious gases in the stomach and intestines has much to do with the redwater condition as it exists in New Zealand. A good drench for this purpose consists of $\frac{1}{2}$ lb. each of Epsom and common salt, and 1 oz. of powdered ginger (if at hand, a tablespoonful of essence of ginger is preferable to the powder).

The animal should be housed and made as comfortable as possible, being kept warm and free from excitement. A drink of water with the chill taken off, to which has been added two or three handfuls of oatmeal and a tablespoonful of salt, should be offered about an hour after drenching. If collapse or general debility takes place the urine should be drawn off, as at this stage the bladder may refuse to function. Stimulants should also be given, and of these the most efficient is beer to the extent of a few bottles. In the convalescent stage great care should be exercised in bringing about a return to normal conditions. Hay, crushed oats, and a little linseed or other such dry feed should be given, and a salt lick provided.

In the great majority of cases this simple treatment will be found effective, but, of course, where the life of a valuable animal is at stake the services of a fully qualified veterinarian should, if possible, be procured.