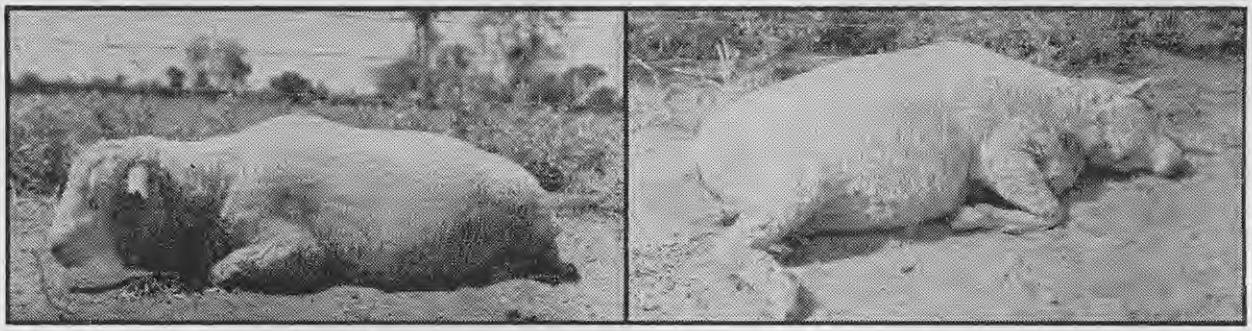

Fig. 6 (left)—Ewe affected with milk fever. Fig. 7 (right)—Ewe in more advanced stage.

to be supported by a better understanding than exists at present of the physiological mechanism controlling the animal's ability to mobilise her body reserves quickly.

What is certain is that sleepy sickness can be prevented by gradually increasing the level of feed intake throughout the last month of pregnancy.

MILK FEVER

Milk fever in ewes, or lambing sickness, bears some resemblance in its clinical symptoms to sleepy sickness, and the two conditions are often confused when first encountered. As with sleepy sickness, older ewes are more susceptible to milk fever. It is important, however, to be able to differentiate between the two conditions, because milk fever, unlike sleepy sickness, is readily amenable to treatment.

Milk fever in the ewe is associated, as it is in the cow, with a sudden fall in the calcium content of the blood, and both in-lamb and lactating ewes may contract the disease. Under certain circumstances the disease may occur in any type of sheep. It is more common before and just on lambing. In the South Island it has occurred at shearing time after the mustering and yarding of sheep.

Outbreaks in Waikato

Though milk fever occurs less frequently than sleepy sickness and is therefore of less importance, in several outbreaks in the Waikato up to 30 per cent. in the mob were affected.

In one outbreak a mob of stud Southdown ewes in good condition were brought into the yards for crutching just before lambing. They were left in the yards overnight, and the next morning the owner found 15 ewes in various stages of the disease, some of them lying flat on their sides and unconscious. A further 40-odd cases occurred during that same day after the ewes had returned to their paddock. All but two, which were the first cases to occur, recovered promptly after treatment.

Yarding of ewes which are close to lambing is the commonest cause of milk fever in the Waikato. Franklin's work on calcium metabolism in sheep in Australia has shown that quite short periods of fasting may be followed by a sudden drop in blood calcium.

Milk fever may also be associated with droving in-lamb or lactating ewes, though in experiments carried out by Franklin only those ewes in which the blood calcium was already below normal developed symptoms of milk fever after exercise.

Another common predisposing cause is a sudden change to lush feed.

Features which distinguish milk fever from sleepy sickness are: Milk fever is more likely to occur after a mild winter with ample lush feed available than is sleepy sickness. It is also much more dramatic in its onset in that often several ewes are suddenly affected within a few hours and symptoms develop rapidly.

In the early stages an affected ewe walks with a staggering gait, due to a stiffness of the hind legs. She often appears nervous and distressed, and when disturbed may shiver or tremble. Such symptoms are often transient and are frequently missed. She soon becomes drowsy and goes down (Fig. 6), often lying with her head turned to the flank; or the ewe may lie on her chest with hind legs straddled out behind and the head stretched out in front. Consciousness is soon lost (Fig. 7) and death may occur within 4 to 6 hours or up to 48 hours. Because of this rapid onset, sheep are often found in varying stages of the disease.

Treatment

Injection under the skin with 40 to 80 c.c. of a 20 per cent. solution of calcium borogluconate is extremely effective—the response, even in advanced cases, is usually spectacular—and should always be attempted where there is any doubt whether the animal is affected with sleepy sickness or milk fever.

Ewes treated for milk fever have sometimes borne dead lambs. Veterinarians sometimes consider it necessary to give magnesium as well as calcium to avoid causing the ewe's death through heart failure, and this may have some bearing on the death of the lamb. A veterinarian who had treated a number of ewes for milk fever used to give the injection into the vein and the lambs were usually born dead. He started giving it under the skin in small doses and there was a marked reduction in the number of dead lambs. Giving a small dose and repeating this dose several times seems to reduce the number of dead lambs.

Dr. C. S. M. Hopkirk Appointed to FAO Position

DR. C. S. M. HOPKIRK, veterinary adviser to the New Zealand High Commissioner in London since 1948, who has completed 40 years' service with the Department of Agriculture, has accepted an appointment as Mission Chief in Ethiopia for the Food and Agriculture Organization of United Nations. Dr. Hopkirk left London to spend a month in Rome before beginning his new duties in Ethiopia on 1 August.

DURING a distinguished career with the Department of Agriculture Dr. Hopkirk made many valuable contributions to knowledge of stock diseases in New Zealand. He has been closely connected with research into mastitis, facial eczema, black disease of sheep, and sterility problems.

In 1945 Dr. Hopkirk was appointed senior veterinary officer for UNRRA in Europe and China, a position he occupied for 2½ years. His duties involved the procuring of veterinary supplies and the rehabilitation of production laboratories, research and diagnostic stations, and veterinary schools in many war-ravaged countries.

One of Dr. Hopkirk's most important tasks was to plan the establishment of a veterinary division in Ethiopia—an innovation in a country where stock disease is very high. He was invited to implement his plan, but declined the position offered him.

After graduating Bachelor of Veterinary Science with first-class honours at Melbourne University in 1923, Dr. Hopkirk returned to New Zealand as Officer-in-Charge of the Department's Wallaceville Veterinary Laboratory, as it was then known. He continued his close association with research at Wallaceville, which in 1939 was incorporated in the Department's newly formed Animal Research Division and was named the Wallaceville Animal Research Station.

A thesis on mastitis in dairy cows gained Dr. Hopkirk the degree of Doctor of Veterinary Science from the University of Melbourne in 1934.

In 1938 he made a world tour on behalf of the Department of Agriculture, visiting all the important veterinary research stations abroad and representing New Zealand at the first Imperial Veterinary Congress in London and the International Veterinary Conference in Switzerland.

Dr. Hopkirk's new appointment in Ethiopia is for 1 year, with the option of renewing it for a further term.