

DEPARTMENTAL NOTE

MULTIPLE BIRTHS IN CATTLE

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THE birth of more than one calf to a cow at a birth is so unusual in Ceylon as to be worthy of record when it occurs.

Cow No. 30 at the Government Dairy, Colombo, gave birth to three bull calves on April 3, 1939. She is a three-quarter-bred Ayrshire Scind aged 4 years and 2 months. She was due to calve on April 8. Unfortunately labour occurred a little prematurely on April 3. She had a difficult calving and required assistance. All three calves were born dead. They were all bulls. Their approximate weights were 35 lb., 30 lb., and 20 lb. The normal weight of a single calf at full term for this breed of cow is between 50 and 60 lb. so that they were all below normal although the total weight *i.e.*, 85 lb. was considerably above normal.

As a rule about 100 calves are born each year at the Government Dairy and so far as records show triplets have never been born before at this Dairy. Twins have been very rare but have occurred on several occasions. Curiously enough the first occasion on which twins have been born at the Peradeniya Farm School Dairy since its inception was in February of this year.

It is of interest to note that when twin calves are born, if they are both of the same sex, either two bulls or two heifers, they are normal; when one is a bull and the other a heifer the bull calf is normal but in about 8 cases out of 9 the heifer is what is called a "freemartin" and is sterile and useless for breeding.

This curious fact is because when twin calves are developing in the uterus of the cow there seems to be a very marked tendency for fusion of the two placental membranes to occur. As a result of the fusion of the placental membranes blood circulates in common through the blood vessels of both calves. Hormones from the developing sex glands of the bull calf gain entrance to the circulating blood and can be carried with the blood to the twin heifer calf. The male sex hormones circulating in the blood

appear to exercise an inhibitory effect on the developing female sex glands of the twin heifer with the result that their development is permanently checked and the ovaries and connected sex organs have their growth arrested at a very early stage and remain infantile throughout the freemartin's life. As a consequence the freemartin is incapable of breeding and is of no value save for the butcher.