A TECHNIQUE TO COUNT MOUNTS DURING FLOCK MATING IN SHEEP USING A METER HARNESSSED TO RAMS.

R. J. Kilgour, H. King, Agricultural Research Centre, and C.S.I.R.O., Division of Animal Physiology, TAMWORTH. N.S.W. 2340 PROSPECT. N.S.W. 2148

Recent work by Fowler (1) has indicated that if the number of mounts during a known period of mating can be counted, then the number of foetuses in the flock can be estimated. Such information can only be collected by direct observation which is time consuming and tedious. The work reported here describes the design and testing of a meter to count mounts.

The meter weighs 500 g and consists of a body and an articulating jaw. The body is attached to a ram mating harness and contains a counting mechanism. A plunger protrudes from the body and is depressed when the jaw closes. When thus depressed the plunger operates a counting mechanism, but only when the meter is elevated 10 degrees from the horizontal.

The meter was tested on four rams in pens 3 m square, where the mating activity of each ram with 5 spayed oestrous ewes was directly observed. The number of mounts was counted by the observer and the number registered by the meter recorded. The rams were 2% years of age in store condition and had been joined for 5 weeks. They had been spelled for two weeks between the end of joining and the start of meter testing. The tests were carried out in March, and were of 1 or 3 hour's duration.

The rams reacted to the meter by rearing very high when mounting, often resulting in a mount which did not register on the meter. Where the number of mounts was less than 20, the regression of mounts registered by the meter on mounts observed was $Y = 1.17 x - 2.01$, $r = 0.64$. However where the number of mounts was high, the relationship was very good. The regression equation here was $Y = 1.08 x - 4.41$, $r = 0.94$.

The results indicate that if the meter is made lighter and more compact it will accurately record the number of mounts. This will allow prediction of the number of foetuses in a flock thereby being an invaluable tool to research workers, and also to private producers enabling prediction of numbers of multiple-bearing ewes and whether or not joining of weaner ewes in any one year is warranted.

REFERENCES