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THE INFLUENCE OF THE SENSES OF SMELL, SIGHT
AND HEARING ON THE SEXUAL BEHAVIOUR
OF RAMS

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The effect of deprivation of the senses of smell, sight and hearing on the mating behaviour of Merino rams was studied.

Three independent tests were carried out. Each test compared the mating behaviour of an untreated ram and a ram deprived of a particular sense in the presence of 8 oestrous and 4 non-oestrous ewes for a period of 8 hours. Three replicates were run simultaneously.

Rams were deprived of their senses as follows: (a) Smell by surgical ablation of the olfactory bulbs, (b) sight by blindfolding, and (c) hearing by surgical removal of the external auditory canal. Oestrus was induced in ovariectomized ewes by progesterone-oestrogen treatment.

Results of the tests are summarized in Table 1.

TABLE 1: MATING PERFORMANCE OF TREATED AND
UNTREATED RAMS

<i>Test and Treatment</i>	<i>A</i>	<i>M</i>	<i>E</i>	<i>A/M</i>	<i>M/E</i>
1. Normal	69.3	24	7	2.9	3.4
—Smell	96	20	6	4.8	3.3
2. Normal	108	25.3	5.6	4.3	4.5
—Sight	53.6**	14.3	1.3	3.7	10.8*
3. Normal	87.6	11.6	4.3	7.5	2.7
—Hearing	64.3*	10.3	1.6	6.2	6.2

A, approaches. M, mounts. E, ejaculations. A/M, efficiency. M/E, dexterity.

There was marked individual variation among rams in performance and in the ability to overcome the loss of any one sense. The sense of smell had no effect on the quantitative response of the rams, but a completely different pattern of behaviour was observed in the ablated rams. The absence of sight had the most inhibitory effect on behaviour and reduced the detection activity and dexterity of mating. There was no marked effect of loss of hearing on mating behaviour. Sexual behaviour (approachment and copulation) did not seem to depend solely upon the integrity of any single sense.