THE BEHAVIOUR AND MOVEMENT OF CATTLE THROUGH FORCING YARDS

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Vowles and Hollier (1982) found that significant improvements in handling times were possible with a cattle handling system incorporating curved races, 360 forcing yards and a teardrop holding yard when compared with yards of traditional design. It was not clear how design and construction of components effected the efficiency of the overall system.

Groups of naive cattle were used in three experiments to study the effect of force yard construction (solid, board and pipe fence panels) and the direction of entry into the force yard (Fig. 1) on the behaviour and movement of the cattle through the force yard. In Experiments 1 and 2, three replicates of three groups of 19 Angus heifers were used to study these factors separately, while in Experiment 3, twenty seven groups of 17 Hereford horned steers (2 reps.) and hornless heifers (1 rep.) were used in a 3 x 3 factorial experiment. The groups of cattle were encouraged to move by a handler operating in a standard manner. The movements were recorded on video tape from which data was taken for analysis.

Fig. 1 Plan of force yard indicating the directions of entry

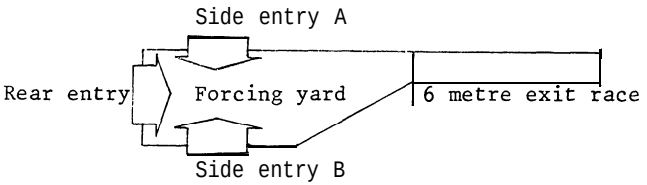

Table 1 Movement times (sec) of cattle through a forcing yard varying in cladding material and direction of entry

	Treatments					
	Cladding			Direction of entry		
	Pipe	Board	Solid	Side A	Side B	Rear
Experiment 1	-	-	-	49^{ab}	45^{a}	59^{b}
Experiment 2	30^{a}	31^{a}	29^{a}	-	-	-
Experiment 3	91^{x}	79^{xy}	65^{y}	79^{a}	79^{a}	78^{a}

a,b = significantly different $P < 0.05$: x,y = significantly different $P < 0.01$

Side entry B was significantly faster than rear entry in Experiment 1 but not in Experiment 3. In Experiment 2, the type of cladding had no effect, but in Experiment 3, the solid cladding treatment was significantly faster than boards ($P < 0.05$) and pipe ($P < 0.01$). There were no significant interactions between treatments in Experiment 3.

The contrasting effect of treatment between the different experiments suggests that the forcing yard design requirements may vary with the type and class of stock eg. fast moving or horned animals. The slower movement observed in the rear entry treatment (Exp. 1) appeared to result from animals turning to see the handler.

VOWLES, W.J. and HOLLIER, T.J. (1982). Proc. Aust. Soc. Anim. Prod. 14:598.

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