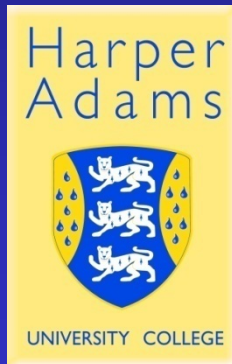


Computerised machine rearing systems for group housed dairy-bred bull calves



S.P Marsh & W Warnock
Harper Adams University College

Introduction & Objective

- There is increased interest in the use of computerised machine feeders for group reared calves in place of systems based on bucket rearing with individual housing.
- The objective of this experiment was to evaluate the effect of rearing dairy-bred bull calves on either a computerised machine or twice a day milk feeding system to weaning at 6 weeks old.



Materials & Method

- The computerised machine fed calves were group housed and fed the same milk powder as the bucket reared calves at an identical daily feed rate
- The milk was available throughout the day with a maximum intake of 60% of milk available in the first feed with the remainder available 2 hours later.



Results

	Bucket	Machine	s.e.d	Sig
Start wt (kg)	45.2	47.3	2.15	NS
Weaning wt (kg)	61.6	62.7	2.35	NS
11 week wt (kg)	102.1	102.2	4.06	NS

- The time spent attending each calf for feeding, bedding and checking was 152 and 71 minutes from start to weaning for the bucket and machine systems respectively.



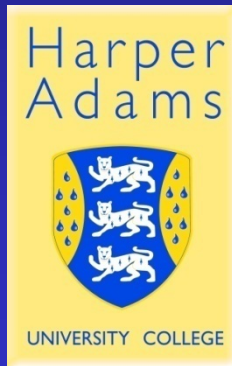
Results

Characteristic	Bucket	Machine	s.e.d	Sig
Cross sucking - mouth	0	1.67	0.007	*
Cross sucking – navel	0	0.33	0.374	NS
Cross sucking – ear & o	0	2.67	0.016	*
Looking	10	4.33	0.027	*
Tactile contact	1.3	3.7	0.336	NS
Play	1.3	3.7	0.011	*
Idle standing	27	14	0.055	<0.072
Lying down	95	110	0.803	NS
Restlessness	23.3	11	0.004	*
Grooming	4	2.33	0.346	NS
Licking	3.33	2.33	0.417	NS
Feeding	14.3	27	0.006	*

Take Home Message

- There were significant differences in behaviour between the two treatments.
 - The machine reared calves recording significantly higher incidence of body part sucking, play and feeding.
 - The bucket reared calves recorded significantly higher incidence of looking and restlessness compared to the machine reared calves.
- Labour inputs were reduced by 53% with the machine reared calves. The DeLaval CF150 feeder costs approximately £3,000 and this would be recouped by rearing over 223 calves.

Computerised machine rearing systems for group housed dairy-bred bull calves



Acknowledgement: Funding for this study was provided by DeLaval Ltd and Wynnstay Group plc.