

Drinking and Competitive Behaviour of Dairy Calves Following Introduction into a Group Pen

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Group housing of calves provides increased access to space, and also allows for social interactions between calves. Teat-based milk feeding systems allow calves to express natural sucking behaviour and have been shown to reduce the rate of cross sucking. Group housing of calves can also substantially reduce labour costs associated with cleaning and feeding of individually housed calves. One convenient way of teat-feeding grouped calves is using computer-controlled milk feeding systems. However, no work to date has examined the effects on feeding and competitive behaviour when calves are introduced into a new group. In this study the feeding and competitive behaviour of 8 Holstein dairy calves was monitored before and after introduction into a pre-established group of older calves. Milk was fed ad libitum by a computer-controlled milk feeder. Milk feeding and competitive behaviours were monitored 2 d prior to introduction into the new group and for 4 d following mixing. Mean (\pm s.e.) milk consumption on the 2 d prior to mixing was 10.1 ± 0.6 kg/d, declined on the day of mixing to 8.7 ± 0.7 kg/d, and increased again on d 1 to 3 to 10.5 ± 0.4 kg/d. During the 2 d before mixing calves consumed 11.6 ± 1.3 meals/d. This declined to 4.0 ± 0.8 meals/d on the day of mixing, and increased again on d 1 to 3 to 9.3 ± 0.8 meals/d. Perhaps to compensate for the reduced number of meals on the day of mixing, calves increased meal duration from 6.6 ± 0.4 min to 11.7 ± 1.4 min and increased their average meal size from 1.0 ± 0.1 kg to 2.8 ± 0.6 kg. Calves in the milk chute were rarely physically contacted by other calves, and these contacts only rarely led to displacements. Over the course of the experiment, calves were observed to be displaced from the milk chute on only 6 occasions.

Take Home Message: For small groups of calves fed from a computerized feeder, mixing young calves has only transitory effects on feeding behaviour. On the day of mixing, calves visit the feeder less frequently, but compensate by increasing the duration and amount of milk consumed per meal.