

Texas Dairy Matters

Higher Education Supporting the Industry

Pair Housing For Calves

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For many years raising calves in individual hutches has been widely accepted in the dairy industry. Recently, researchers have begun investigating whether pair housing of calves might have benefits over the traditional individual hutch rearing of calves. Although individual rearing prevents some unwanted social behaviors, pair housing may allow earlier socialization which could be beneficial to calves as they transition from liquid to dry feed and from individual to group housing.

Researchers from British Columbia investigated whether there were differences in solid feed consumption and weight gain of calves that were either individually reared or paired at 6 or 43 days of age. Forty bull calves were used in the trial. All calves were fed at least four liters of colostrum within six hours of birth and then individually fed either for the entire trial or paired with another calf. Eight were fed individually and the remaining calves were paired at either 6 or 43 days of age (eight pairs for early and late pairing).

All calves received eight liters of milk per day for the first four weeks of life, followed by six liters per day until week 7. Milk consumption was then decreased by 20% per day until the calves were weaned at eight weeks of age. Calves were offered a TMR as well as calf starter; however intake was minimal until week 3. There were no significant differences in TMR intake.

Calf starter consumption was greater for the early paired calves by week 6 (0.4 pounds per day) compared to the individually and late paired calves (0.15 and 0.11 pounds per day). By 10 weeks of age the early paired calves consumption of calf starter was still greater than that of the other two treatments. The early paired calves averaged 4.8 pounds per day, while the individually fed and late paired calves consumed just 2.4 and 2.8 pounds per day.

Although there weren't any differences in weight gain during the pre-weaning period, over the ten week treatment period the early paired calves gained more weight. The early paired calves

gained nearly two pounds per day while the individually fed calves gained 1.67 pounds per day and the late paired calves gained 1.60 pounds per day.

Based on the results from this trial it appears that early pairing of calves may result in earlier consumption of calf starter. The increased consumption resulted in increased weight gain in the post-weaning period. The calves that had been paired earlier transitioned through weaning with less of a setback in growth rate than those in the other two groups.

Previously researchers had evaluated pairing calves at birth or three weeks of age and hadn't found differences in solid feed intake. Based on these two studies, it appears that pairing calves any time within the first three weeks can enhance feed intake and subsequent weight gain.

Although not evaluated in this study, other researchers have shown how increased growth rates in calves result in earlier onset of puberty and age at first calving. Some studies have even shown that these calves produce more milk during first lactation.

If you are considering changing management of your young calves, the early socialization that comes from pairing calves at less than three weeks of age is worth considering. Calves should have increased starter consumption, which will improve growth rates.

<http://texasdairymatters.org>

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