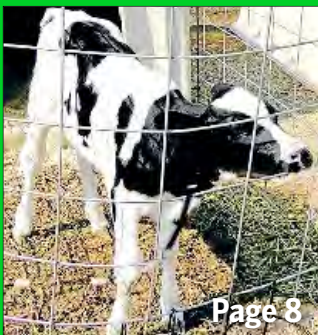


Sharing ideas, solutions, resources and experiences that help dairy producers succeed.



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Raise cull-cow bar



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Calf-care workshops coming soon



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Summer's end means hoof health time



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Operating loans can solve cash-flow shortages

Raising calves together offers advantages

KATY PROUDFOOT

Dairy producers are hearing more and more about advantages to housing their pre-weaned dairy calves in pairs or small groups rather than individual hutches or pens. Individual housing during that sensitive period has long been thought beneficial for hindering the spread of diseases, but the research is mixed. On the one hand, calves housed in an environment with poor ventilation and/or drainage are at higher risk of respiratory disease when housed in groups compared to individual pens. But when calves are well managed, those housed in pairs or groups of less than eight have better health compared to those housed individually or in groups of eight calves or more.



Katy Proudfoot

Studies also show that giving calves companionship during those first few weeks of life can add other benefits both before and after weaning, such as better starter intake and increased growth rates, as well as social and learning skills that may eventually make them better herd-mates as adults.

Despite traditional wisdom, increasing evidence shows that housing calves in pairs or small groups has advantages in health and social skills that extend through adult life.



University of British Columbia

learning skills that may eventually make them better herd-mates as adults.

Create better starter intake, skills

Housing calves in pairs before weaning increases their starter intake, improves their ability to socialize with unfamiliar calves and makes them better learners in general. In a study by scientists at the University of British Columbia's Animal Welfare Program, calves were either housed in a pair or individually with the same amount of

space per calf. Calves housed in pairs consumed an average 37 percent more grain compared to those housed alone.

Researchers at Denmark's Aarhus University found a similar impact of pair housing on starter intake. Calves housed in pairs ate more than 30 percent more grain than individually housed calves, but only if they were provided a high milk allowance – 2.4 gallons per day versus 1.3 gallons per day. Calves housed in pairs also spent more time playing – running, kicking and jumping – compared to those housed alone.

To test if increased-play behavior was also a sign the calves were developing better social skills, researchers moved calves from pair-pens and individual-pens into a new area with an unfamiliar calf. Calves that had been housed in pairs approached the new calf sooner, had a lower heart rate – a sign of lower stress – and had fewer pushing and mounting behaviors compared to those housed individually.

Not only did calves have better social skills, they also showed signs of improved learning. University of British

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Calves

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Columbia scientists tested this idea by teaching calves a new task: tell the difference between a black bottle and a white bottle. The black bottle meant calves were given milk, while the white bottle meant calves would be punished with a “time-out” and be isolated from other calves.

All calves learned to distinguish between the two bottles easily and consistently approached the black bottle. To see how smart the calves really were, experimenters then switched bottle colors, so the black bottle meant a time-out while the white bottle meant milk. That was where the paired and individually housed calves differed – calves housed in pairs learned that the bottles were switched much faster compared to calves housed alone.



One way to house calves in pairs is to move their hutches together and enclose them with a fence, as shown in this photo from a study done by the University of British Columbia's Dairy Education and Research Centre.

Long-term benefits: weight gain, less stress

Not only do paired and grouped calves eat more starter, have better social skills and are generally quicker to learn,

researchers learned they perform better once they're weaned and moved into a new group. Researchers from both the University of British Columbia and Aarhus University did studies to test that – and discovered calves do indeed perform better after weaning. Calves housed in pairs grew better, learned how to use a new grain feeder and consumed grain faster, and showed fewer signs of stress when weaned and moved into a new group, compared to individually housed calves.

If those skills learned early in life can lead to improvements in performance and a stress reduction after weaning, what does that imply for those animals post-calving and when they're introduced to the milking parlor or are regrouped with unfamiliar cows? More research is still needed to answer that question, but there's a good chance those skills will translate into less-stressful transitioning as the animals enter breeding, calving and milking age.

Is social housing the way to go?

The research is clear that housing calves in pairs or small groups can have positive benefits for them post-weaning, and

potentially when they're adults. But before converting to social housing, it's important to take steps to reduce the risk of respiratory disease by improving ventilation and ensuring careful disease monitoring and treatment.

When pairing or creating small groups, it's also important to not take away any space allowance for calves. For example, if housing calves in individual hutches, simply putting two hutches together and using a wider outdoor enclosure can help create a pair. Also don't introduce new calves to the group on a regular basis. Keeping the groupmates the same until weaning age helps reduce the spread of disease.

For producers who are worried calves will cross-suck when they're housed together, give calves the chance to suck on something else before they turn to their partner. Feeding calves through artificial teats, whether on bottles or teat-buckets, increases the time calves spend sucking and reduces cross-sucking compared to traditional bucket feeding. Other methods to reduce cross-sucking include feeding a high amount of milk – for example, 20 percent of body weight – and gradually weaning the milk by diluting it with water or decreasing milk allowance through five to 10 days.

If competition for milk is a concern, provide two separate buckets and add a small barrier between them. If using hutches, put one bucket in each hutch. Feeding calves a higher level of milk – 2 to 3 gallons per day – can also help reduce competition between calves, especially if calves are fed with a computer-controlled milk-feeding system.

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