

Is Paired Housing the Right Choice for Your Calf Raising Operation?



By Alex Austin, B.S.

Raising replacement heifers is an important part of any dairy operation. Dairy producers have many factors to consider when deciding the best way to raise their calves. Paired housing for calves is a concept that has gained popularity, for a number of reasons, over the last decade.

Many farms feel raising calves individually is the easiest and healthiest way to raise their young stock. According to research done by the University of Wisconsin in 2019, 77% of farms raise calves individually. Whether they are raised in individual hutches outdoors or individual pens in a barn, most calves are not allowed to have physical contact with each other. Preventing direct calf-to-calf contact can help reduce the spread of pathogens and disease. Calves raised individually allow for more accurate monitoring of feed intake and are easier to handle/restrain.

Although individually raised calves have been the industry norm to date, recent research is shedding new light on the benefits of pair raised calves. Pair raised calves are also referred to as being raised in the “buddy system”. This method pairs calves in a pen anywhere from three days of age to three weeks of age until weaning, at which time they will be introduced into a larger group. Other systems may combine pre-weaned calves into small groups that are raised together until weaning before being placed in a larger post-weaned group.

Benefits of Pair Raised Calves

Social / Cognitive Development

Dairy cattle are social animals. Isolation from birth until weaning can slow social and cognitive developments and make transitioning from their individual pen into group housing more stressful. In an example to demonstrate the difference in ability to adapt to change between group housed and individually housed calves, a research study was performed titled “*Social Housing Improves Dairy Calves’ Performance in Two Cognitive Tests*”. In this study, calves learned to distinguish between two colors presented on a screen. When one particular color was presented, and calves approached the screen, they would receive a reward. When a different color was presented, if calves approached the screen, they would not receive a reward and instead had a time out period. Both group housed and individually housed calves learned to associate one color with a reward and the other color with a time out. However, when the colors and subsequent reward was reversed, the group housed calves quickly learned to adapt to the rule change while the individually housed calves struggled to adjust and took much more time to consistently achieve receiving the reward.



Increased Feed Intake / Improved ADG

Pair raised calves exhibit an increased feed intake rate and a resulting improved average daily gain (ADG) advantage over individually housed calves. In six different studies, ranging from 2016 - 2020, results showed an improvement in feed intake and weight gain for pair/group raised calves. Daily grain intake in pair raised calves was greater by 1/4 to 1 lb. per head per day before weaning and by 3/4 to 2 1/2 lb. per head per day after weaning over individually raised calves. The advantage was also seen in ADG and weaning weight as the ADG for paired calves was greater by 1/4 lb. per head per day, and body weight at weaning was greater by 5 to 9 lb. per head.

Animal Welfare & Public Perception

Animal welfare has become an increasing concern as public interest in production agriculture has grown. The public is more accepting of calves housed in pairs/groups. Although individual housing can be an option for raising calves, public perception of a calf in individual pens may be that they are isolated, in a jail-like confinement. When calves are raised together, there is a display of social interaction between calves as they grow up together.

Potential Disadvantages in Pair Raised Calves

Cross sucking

Cross sucking can be reduced by feeding the appropriate amount of milk with a bottle and nipple that provide for proper suckle time. Crystal Creek® recommends feeding 8 quarts of milk or milk replacer per head per day. Feeding less than 8 quarts of milk per head per day will not deliver the appropriate number of calories needed for calf growth and development, (See the **December 2018 Issue of the Crystal Creek® Newsletter** for the article *“Calves, Cold Weather and Calories.”*).

Using nipples rather than buckets to feed calves satisfies their suckling instinct. When this need

is not met, cross sucking can happen. Using slow flow nipples, such as Peach Teat™, will help to satisfy this instinct. Allowing calves access to a nipple for at least 20 minutes after they finish feeding is also helpful. If this is not an option, providing a standalone nipple to serve as a pacifier can be an option.

Pathogen Spreading

The spread of pathogens from direct calf-to-calf contact is a concern for many producers. There have been several large-scale studies that have determined there is no increased risk for pathogen spreading in paired calf housing compared to individually housed calves. Whether calves are paired, grouped or individually housed nothing can take the place of proper colostrum and milk feedings, good sanitation, and proper air quality/ventilation. (More information can be found on these topics in the **December 2019 issue of the Crystal Creek® Newsletter** in the article *“Calves and Bicycle Wheels: A Systematic Approach to Troubleshooting Pre-weaned Calves.”*).

Factors to Consider Before Making a Change

Layout/Handling

The size and layout of the facility/barn needs to be taken into consideration when choosing which pen/housing style to go with. Pens and hutches come in many different dimensions. Take the time to choose the best fit for your operation. Be aware that all pens are not made equal. Purchasing a quality pen or hutch that will hold up to wear and tear and the elements, may cost more to start with but can ensure that you get the best return on your investment in the long run. Another factor to consider is how, and where, you will move and clean your pens. Special equipment may be necessary to move/handle pens depending on the pen or hutch size, weight and set-up.

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Feeder Options

Deciding what type of feeding style will be used is important when considering which calf housing option is best for your operation. Producers can choose individual bottles, milk bar style feeders, pails, or group or automatic feeders. Some penning options come with different feeding features included with them while others will need to be added. How the feeding equipment will be cleaned and sanitized is important to consider as well. Proper cleaning and disinfecting procedures are critical to calf health.



Ultra-Flex Pen™

Time Spent Feeding

Making the change from individual calf housing to a group pen that utilizes a milk bar style feeder or auto feeder, does not necessarily decrease the time spent caring for calves. Group pens require just as much of a time commitment, the time is just spent in other areas like equipment maintenance and sanitation. Unlike paired housing, large groups of housed calves have the potential to spread pathogens more quickly within the group.

Housing Options

Ultra-Flex Pen™

One option for indoor, paired calf raising is the Ultra-Flex Pen™ from Agri-Plastics. This pen is a great option for farmers that have been set up for individual pens but would like to raise calves in pairs. The center panel is easily removed, combining the two calf areas. The panels are lightweight, durable and easy to clean. They come in different lengths to fit in any size barn. The Ultra-Flex Pen™ allows farms to take advantage of the benefits from pair raised calves with ease. Penning in calf barns allows for easy calf care in all seasons, but it is critical that proper ventilation be supplied for the calves in these types of barns. Producers must ensure the calf barn ventilation system for the barn is properly sized and designed so fresh air is circulated at calf level to help raise healthy calves.

Buddy Hutch

The Buddy Hutch from Agri-Plastics is like the Ultra-Flex Pen™ in the fact that it also has a center panel that is easily removed to pair calves. This is a great option for farmers raising calves outdoors. This hutch comes with an optional weather cover and extension. Outdoor calf housing provides excellent air quality for young growing calves. In some climates, winter can add extra calorie and environmental challenges for producers. In these circumstances, it is imperative to provide high-quality milk, feed and bedding sources to help keep calves warm.

Group Hutch

The Group Hutch from Agri-Plastics is another outdoor housing option. It is large enough to house 4-6 post-weaned calves and molded in one piece for superior strength. Due to its extra size and height, it allows farmers to raise calves in groups from birth through weaning if desired. Outdoor calf housing can present unique challenges during colder weather. Making sure calves have adequate bedding and calories is key to their success. The Group Hutch has a large, rear swing-up door to allow for easy bedding access.

No matter what your calf raising set up or needs are, Crystal Creek® can help you determine what type of calf housing would be best. One thing that can be agreed upon, and that research supports, is the advantages that raising calves in pairs or groups can provide. The knowledgeable staff at Crystal Creek® is here to help you make the best decision for your operation.

References available upon request.