

MANAGEMENT PRACTICES FOR RAISING DAIRY BUCK KIDS FOR MEAT

Feeding Dairy Buck Kids for Meat Production

As the demand for goat meat in Ontario continues to rise, producers are searching for ways to increase the supply. Two producers, Terry McNeely and Dirk Boogerd, have turned to raising dairy buck kids for meat. Described by McNeely as a 'hidden gem in the industry,' raising dairy buck kids for meat provides an opportunity to begin to bridge this gap between the supply and demand for goat meat. Although dairy buck kids have a reputation of being more difficult to raise for meat than traditional meat breeds, both McNeely and Boogerd have found success. Research on this topic is limited, however using existing research along with examining the management practices McNeely and Boogerd follow, recommendations can be made for the development of effective feeding programs. When developing feeding programs it is important to consult with a nutritionist to ensure nutrient requirements are met and to prevent diet-related disease due to improper nutrition.

One of the most universally accepted practices in kid management is to feed high quality, disease-free colostrum as soon as possible after birth to get the kids off to a healthy start. Kids need to consume 50 mL per kilogram body weight of colostrum four times within the first 24 hours of life for a total of 200 mL/kg body weight. Colostrum feeding will provide the kid with immune protection in the first three weeks of life while the kid strengthens its own immune system. Both McNeely and Boogerd feed their dairy buck kids colostrum. McNeely allows the dairy buck kids born on his farm to suckle colostrum directly from healthy does and has made sure that the producer supplying the additional dairy buck kids he purchases has fed the kids colostrum as well. If dairy buck kids are purchased, it is important to have a conversation with the supplier about the routine kid management practices used on their farm. It is essential to ensure that the supplier feeds the kids the appropriate quantity of high quality colostrum within the specified time after birth. Boogerd feeds his dairy buck kids colostrum as well, however he uses frozen cow colostrum that has been properly stored and thawed, from a disease-free herd of dairy cattle. When using cow colostrum to feed kids, it is important that the herd is disease-free as certain diseases, such as Johne's disease, can spread between these two species. One of the main reasons Boogerd has chosen to use cow colostrum to feed his dairy buck kids is because Caprine-Arthritis-Encephalitis (CAE) does not exist in cows, therefore he can suppress CAE transfer within his herd which he hopes will lead to control and eradication of the disease within his herd.



When dairy buck kids are purchased rather than born on-farm, additional management practices must be followed. The reason for this is that purchasing kids from various farms results in commingling of different herds, increasing the risk of disease transmission throughout the very susceptible young herd. When commingling occurs, disease spread between the various groups of kids becomes more likely due to the stress the kids experience when mixed in a new social group and during transport. To minimize this, it is important to have a conversation with the supplier about the farm's management practices, treatment records and health status before purchasing the dairy buck kids. In addition, any relevant vaccinations and treatments to address the commingled herd's health should be administered and recorded as recommended by a herd veterinarian. When possible it is also beneficial to isolate the new herd from those already on the farm for two to four weeks or as recommended by a veterinarian, to help reduce the risk of disease spread.

McNeely has been addressing the issue of commingling and disease spread from the purchased dairy buck kids and the kids born on his farm by closely watching the kids for the first two weeks after arrival and by separating the new kids from the rest of the herd for one to two weeks to minimize the spread of disease. McNeely only

purchases his dairy buck kids from one supplier which reduces the level of commingling in the herd. Additionally, McNeely and his dairy buck kid-supplier have a good relationship; McNeely trusts that his supplier will follow proper management practices and will notify him of any disease outbreaks allowing McNeely to maintain herd health and success in raising the dairy buck kids for meat more easily.

Following the colostrum feeding, decisions about whether to feed milk replacer, acidified milk replacer, acidified milk or whole milk must be made, any of which can be suitable for raising dairy buck kids. McNeely allows the buck kids born on his farm to naturally suckle from the dam while the purchased kids are fed milk replacer before arriving on the farm. When McNeely picks these kids up he takes a bag of the supplier's milk replacer and blends it with his own to gradually introduce his milk replacer and continues feeding it while avoiding digestive upsets. It usually takes at least one week to transition the kids from his supplier's milk replacer and onto his own. McNeely feeds the dairy buck kids milk replacer twice a day. Boogerd feeds his dairy buck kids using slightly acidified milk replacer from an automatic feeder, and allows the kids to drink free-choice.

Another important decision when developing a feeding program for dairy buck kids, is when to introduce a kid starter and hay. It is important that starter and hay are offered alongside milk or milk replacer as solid feed encourages rumen development which must occur before kids are weaned. Clean, fresh water should be available to the kids at all times after it is introduced at 24 hours after birth and is particularly important once solid feed is presented. McNeely introduces a kid starter and water free-choice at birth and a small amount of hay twice a day. Boogerd introduces kid starter three to four days after birth. At this time, Boogerd also introduces water; however, hay is not introduced to Boogerd's dairy buck kids until they are two weeks old.



The next step in developing a feeding program is to construct criteria for when to wean the dairy buck kids off milk. The recommended method for determining when the kids should be weaned is dependent on weight and the amount of solid feed the kids are eating. It is recommended that the dairy buck kids are not weaned until they weigh about 2.5 times their birth weight and are consuming at least 230 g of solid feed per day. McNeely and Boogerd use a similar set of criteria to determine when to wean their dairy buck kids. McNeely watches the feeders containing kid starter for the amount of pellets the kids are consuming which gives him a pretty good indication of when the kids

are ready for weaning. Around this time McNeely weighs some of the kids to make sure this group is heavy enough to be weaned. If some of the kids in the group are too small, he will hold those individuals back to make sure they will be able to handle the stress of weaning. McNeely finds that his dairy buck kids are usually ready for weaning at seven to eight weeks old. Boogerd also determines whether or not his dairy buck kids are ready for weaning based on weight. Boogerd weans his kids off of milk when they reach 15 kg and are eating some fresh pellets. Boogerd has found that the kids that are 15 kg but are not eating the pellet tend to drop a little bit of weight after weaning before beginning to gain again so he finds it important that they are eating some solid feed before weaning.

Both McNeely and Boogerd use a sudden weaning strategy. This means that once a kid meets the weaning criteria they have developed; they are no longer fed milk, and instead only rely on solid feeds to receive nourishment. A gradual weaning strategy can also be used in which the kids are slowly (or gradually) switched from a milk-based diet to relying only on solid feeds. Sudden and gradual weaning are both acceptable weaning strategies and no significant difference has been demonstrated between the two strategies in regard to overall production potential as long as the kids meet the recommended criteria for weaning.

After weaning, the dairy buck kids consume solid feeds. Post-weaning feeding programs for raising buck kids are not well defined at the present time and further research is required to determine the best way to feed these

buck kids. However, current feeding programs offer kids a complete pellet, formulated specifically for bucks, to prevent feed sorting and only consuming some nutrients. It is important to offer feed formulated specifically for dairy buck kids to avoid possible health issues that can arise from improperly balanced intake of nutrients. An example of this includes the development of 'water belly' or kidney stones (urinary calculi). Buck kids are predisposed to the development of kidney stones, therefore feeding the buck kids the same ration as doelings can result in an increased risk of kidney stone development. McNeely and Boogerd both feed buck-specific pellets to their dairy buck kids. However, McNeely also feeds his dairy buck kids whole barley mixed with the pellet at about 50 per cent of the diet (50 per cent pellet, 50 per cent whole barley). The reason McNeely has chosen to include barley in the feeding program for dairy buck kids is because it is higher in both energy and protein which he finds helps them gain the desired weight more quickly.

McNeely and Boogerd raise the dairy buck kids for different markets. McNeely primarily raises the kids year-round and sells them at the abattoir, but also markets some kids for ethnic holidays in the fall while Boogerd raises the dairy buck kids for ethnic holidays. McNeely and Boogerd also raise their kids to different weights. McNeely raises the dairy buck kids to 28 kg (60 lbs) while Boogerd raises them to 30 to 32 kg (65 to 70 lbs). Determining where the dairy buck kids will be marketed and the target market weight is another important step in developing an effective feeding program.

Further research efforts to develop adequate feeding programs for dairy buck kids is still necessary for advancement of the industry, however Terry McNeely and Dirk Boogerd have demonstrated success in raising dairy buck kids for meat. Both producers were able to achieve success in raising these kids for meat largely due to their dedication to working closely with a nutritionist to develop feeding programs. McNeely and Boogerd have helped to emphasize the potential for dairy buck kids to become profitable meat producing animals with the development of a proper feeding program. While the demand for goat meat continues to rise, raising dairy buck kids for meat may be just what the industry needs!



Case Study: Terry McNeely

- **Supply of kids:** McNeely raises the dairy buck kids born on his farm and buys additional dairy buck kids.
- **Colostrum:** McNeely allows the dairy buck kids born on his farm to naturally suckle colostrum from healthy does. For purchased kids, McNeely knows that they have been fed appropriate amounts of high quality colostrum because he has built a strong relationship with his supplier and is aware of all management practices and herd health status.
- **Pre-weaning feeding program:** Milk from the doe for kids born on-farm, milk replacer for purchased kids; all kids get free-choice buck-specific starter pellet and water from birth, with a small amount of hay offered twice a day
- **When to wean:** Ensures kids are eating the starter pellet and weighs each kid in the group to determine if they are ready for weaning
- **Weaning strategy:** Sudden
- **Post-weaning feeding:** Grain based buck-specific crumble pellet and barley fed ab libitum
- **Market:** Kids are marketed year-round supply to abattoir
- **Target market weight:** 28 kg
- **Time to target weight:** 3 ½ to 4 months

Best tip for raising dairy buck kids for meat: McNeely believes that successfully raising dairy buck kids “circles around a good relationship with the person supplying your buck kids. You want to make sure that they treat their buck kids the same way they would treat their doe kids.” Another big thing is to “not cheap out on paying for kids,

you have to put in the money then and work with someone you really trust otherwise it is a lot more difficult to raise these kids.”

Case Study: Dirk Boogerd

- **Supply of kids:** Boogerd raises the dairy buck kids born on his farm.
- **Colostrum:** Cow colostrum from a Johne’s disease-free herd is fed to all dairy buck kids.
- **Pre-weaning feeding program:** Slightly acidified milk replacer fed using an automatic feeder with free-choice water and buck-specific pelleted starter introduced on day three or four; hay is introduced when the kids are around two weeks old
- **When to wean:** Ensures kids are eating some starter and weigh at least 15 kg
- **Weaning strategy:** Sudden
- **Post-weaning feeding:** Grain based buck-specific pellet
- **Market:** Kids are marketed for ethnic holidays
- **Target market weight:** 30 to 32 kg
- **Time to target weight:** 5 ½ to 6 months

Best tip for raising dairy buck kids for meat: Boogerd believes that when raising dairy buck kids the most important thing is “getting the buck kids off to a good start; they need to be fed colostrum right away and the quality and quantity of colostrum they are fed is very important for giving them a good start. It is also important to use milk replacer and feeds formulated for goats and more specifically for bucks to meet their nutrient requirements while avoiding nutrient-related diseases.”

For more information on farming goats refer to:

- [Best Management Practices for Commercial Goat Production](#)
- [Biosecurity Planning Guide for Canadian Goat Producers](#)
- [National Farm-level Biosecurity Standard for the Goat Industry](#)
- [Canadian Goat On-Farm Food Safety Program](#)
- [Recommended code of practice for the care and handling of farm animals-Goats](#)
- [Recommended code of practice for the care and handling of farm animals-Transportation](#)
- [Facts and Figures about Canadian Goat Farming](#)



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