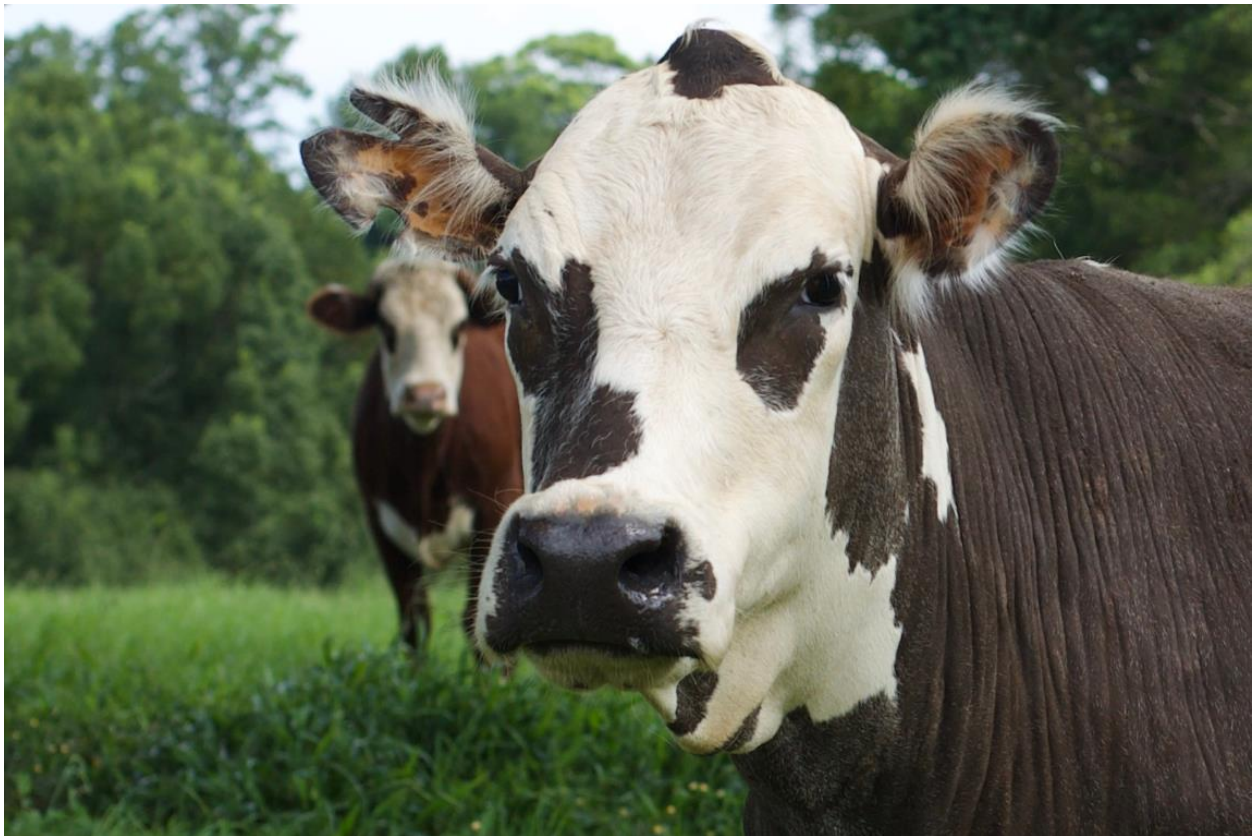


Improving Carcass Value of Beef × Dairy Crosses.
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Global Farming Digest

Executive Summary

The integration of beef genetics into dairy production systems has become one of the most significant developments in modern cattle production. Beef-on-dairy programs provide dairy producers with an opportunity to increase the value of surplus calves while maintaining a primary focus on milk production. However, the success of these systems depends on producing animals that meet the requirements of the wider beef industry, including consistent growth performance, efficient feed conversion, and desirable carcass characteristics. The recent study by Foraker et al. (2025), examining morphological growth and carcass performance of beef × dairy cattle expressing different levels of beef and dairy characteristics, highlights the importance of understanding variation within these crossbred populations.



The research demonstrates that beef × dairy cattle are not a uniform group and that differences in physical characteristics can influence their suitability for beef production. Animals with greater expression of beef-type traits generally demonstrated characteristics associated with improved carcass potential, while more dairy-type animals displayed differences in body structure and muscular development. These findings have practical implications throughout the production

chain, from dairy farms making breeding decisions to feedlots managing groups of variable cattle and processors seeking consistent carcass supply.

For the industry to fully capture the benefits of beef × dairy crossbreeding, breeding decisions must be based on more than simply increasing beef influence. Successful systems require careful selection of beef sires, accurate performance recording, effective calf management, and cooperation between dairy producers, beef finishers, and processors. When managed correctly, beef × dairy systems represent an opportunity to improve economic returns and increase efficiency within both dairy and beef sectors.



Introduction

The dairy industry has traditionally produced large numbers of calves with limited value in conventional beef markets. Male dairy calves have historically presented a challenge because their genetic selection has prioritized milk production rather than traits associated with beef yield and carcass performance. In response to economic pressures and increasing demand for higher-value beef products, many dairy producers have adopted beef-on-dairy breeding programs as a strategy to improve the market value of calves.

Beef × dairy crossbreeding combines the reproductive efficiency and availability of dairy females with the growth and carcass advantages associated with beef genetics. This approach allows producers to generate beef animals from existing dairy resources rather than relying solely on traditional beef cow production systems. However, the effectiveness of this strategy depends on producing cattle that are predictable and suitable for the entire beef supply chain.

García (2024) highlighted that beef-on-dairy breeding has become an important management tool for improving dairy farm profitability. He emphasised that successful programs require careful

selection of beef genetics, consideration of calving ability, and alignment between breeding decisions and market requirements. The objective is not simply to produce a crossbred calf, but to produce an animal that delivers value through improved growth, carcass performance, and market acceptance.

Despite the rapid expansion of beef-on-dairy systems, variation among crossbred cattle remains a major challenge. Unlike traditional beef breeds with more predictable production characteristics, beef $\times$ dairy cattle can express a wide range of physical traits depending on breed selection, genetics, and management. Understanding this variation is essential for improving consistency and profitability.

Discussion

The article selected for this analysis, “*Morphological Growth and Carcass Performance of Crossbred Beef $\times$ Dairy Cattle with Expression of Beef- versus Dairy-Type*” by Foraker et al. (2025), investigated how differences in animal appearance and body type influence growth and carcass outcomes. The researchers examined beef $\times$ dairy cattle and evaluated the relationship between physical characteristics associated with beef-type or dairy-type expression and their eventual production performance.

The study identified considerable variation among beef $\times$ dairy animals, demonstrating that crossbred cattle cannot be considered a single uniform production group. Some animals displayed stronger beef-type characteristics, including greater muscular development, while others retained more dairy-type features associated with frame size and body structure. These differences were associated with variation in carcass potential and production outcomes.

One of the most important findings from the study was that visual characteristics, particularly indicators of muscularity, may provide useful information when evaluating beef $\times$ dairy cattle. In practical terms, this suggests that producers and feedlot operators may benefit from identifying animals with greater beef expression earlier in the production process. Improved identification and sorting strategies could allow more efficient management of cattle with different growth patterns and finishing requirements.

The study provides valuable information for the beef industry because consistency remains one of the greatest limitations of beef $\times$ dairy production systems. Feedlots and processors operate most efficiently when cattle have predictable performance characteristics. Variation in growth, maturity pattern, and carcass composition can increase management costs and reduce the ability of processors to deliver consistent products to consumers.

However, the study also highlights that phenotype alone cannot explain all differences in performance. Genetic selection, nutrition, health management, and environmental factors continue to influence outcomes. Therefore, physical assessment should be considered alongside breeding information and performance data rather than used as the sole selection method.

Practical Implications for the Industry

For dairy producers, the adoption of beef-on-dairy breeding represents a significant opportunity to increase income from calf production. However, the choice of beef sire is a critical management decision. Selecting a bull purely for maximum growth potential may create unintended consequences, such as increased calving difficulty or longer gestation periods. Instead, dairy farmers must select genetics that complement their management system and the requirements of their target market.

A successful beef-on-dairy program begins with understanding the purpose of the cross. Dairy producers should focus on producing calves with characteristics valued by the beef industry, including adequate muscling, appropriate growth rates, and desirable carcass traits. García (2024) emphasised that strategic use of sexed dairy semen on elite dairy females combined with beef semen on other cows can improve herd efficiency while increasing calf value. This approach allows dairy producers to maintain genetic progress within the milking herd while creating additional revenue opportunities from beef production.

For calf rearers and feedlot operators, the major challenge is managing variation. Beef × dairy cattle can differ significantly in frame size, muscle development, growth rate, and finishing ability. Animals with stronger beef characteristics may respond differently to feeding programs compared with cattle that retain more dairy characteristics. Improved record keeping, weighing programs, and early assessment of cattle type can help producers manage this variation more effectively.

From a processor perspective, consistency is essential. Beef × dairy cattle can produce predictable, high-quality carcasses, but only when genetic selection and management are aligned throughout the production chain. The findings of Foraker et al. (2025) translate into practical management strategies that producers and consultants can apply to improve carcass consistency and value.

Table 1. Management Practices That Improve Beef × Dairy Carcass Value

Stage	Recommended Action	Expected Benefit
Breeding	Select beef sires using calving ease and carcass EPDs	Improved calf value with minimal calving risk
Early calf management	Maximize average daily gain	Stronger skeletal and muscle development
Growing	Group cattle by frame and muscling	More uniform feeding and finishing
Feedlot	Monitor growth and adjust finishing strategy	Improved feed efficiency and carcass consistency
Marketing	Document genetic and carcass performance.	Build confidence and <u>increases</u> repeat demand

Recommendations for Future Beef × Dairy Production Systems

The future success of beef-on-dairy production will depend on improving consistency and coordination across the industry. The priority should be the continued improvement of genetic selection strategies. Dairy producers should select beef sires based on a combination of traits, including calving ease, growth performance, muscling, and carcass value, rather than focusing on a single characteristic.

Greater use of performance recording will also be essential. Collecting information on calf growth, feed efficiency, and carcass results will allow producers to make more accurate breeding decisions and identify which genetic combinations provide the greatest economic return.

Industry collaboration should also be strengthened. Dairy farmers, genetic companies, calf producers, feedlots, and processors all influence the final value of beef × dairy cattle. Better communication between these sectors will ensure that breeding decisions made on dairy farms align with the requirements of beef markets. No single management decision determines carcass value. Rather, value is created through a series of coordinated decisions made from sire selection to market.

Five Questions to Evaluate Your Beef-on-Dairy Program

1. *Are we selecting beef sires using calving ease and carcass merit, rather than growth alone?*
2. *Do we know which beef sires consistently produce the highest-value carcasses in our herd?*
3. *Are calves achieving uninterrupted early growth?*
4. *Are we collecting growth and carcass data to improve future breeding decisions?*
5. *Are our breeding goals aligned with market requirements?*

Finally, the industry should focus on producing consistent cattle rather than simply increasing beef influence. The most valuable beef $\times$ dairy animal is not necessarily the one with the highest percentage of beef genetics, but the one that performs efficiently and reliably within the intended production system.

Conclusion

Beef $\times$ dairy crossbreeding represents an important opportunity to improve the efficiency and profitability of modern cattle production. The findings of Foraker et al. (2025) demonstrate that variation exists among beef $\times$ dairy cattle and that differences in physical characteristics can influence growth and carcass performance. This variation presents both a challenge and an opportunity for the beef industry.

By implementing careful sire selection, improved data collection, and better coordination between dairy and beef sectors, producers can develop more consistent and valuable cattle. The most profitable beef $\times$ dairy programs are not those that simply produce more crossbred calves, but those that consistently produce cattle the beef industry wants to buy. When managed strategically, beef $\times$ dairy systems can contribute significantly to a more efficient and sustainable beef supply chain.

Further reading

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