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The strategic moment for dairy-beef in New Zealand

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Summary

- New Zealand's dairy sector is at a strategic crossroads. With nearly 2 million underutilized calves born annually, the opportunity to build a scalable, profitable dairy-beef system is now – and could be worth over NZD 1.2 billion at current market prices.
- Global beef demand is rising, and New Zealand must act to take advantage of the opportunity. Strong export prices and tightening global supply create a lucrative window for New Zealand to expand its beef footprint, but herd rebuilding takes time and requires coordinated, cross-sector action.
- Better breeding is the biggest lever for lifting dairy-beef productivity. Strategic use of superior beef genetics, artificial insemination, and calving timing can dramatically reduce early calf (bobby calf) slaughter and enhance profitability across the value chain – and improve growth rates in reared dairy-beef calves – without necessarily overhauling the entire dairy herd.
- Calf rearing is the system's pressure point. Rearers carry the highest risk and need better incentives, infrastructure, and support to lift rearing rates and help avoid boom-bust cycles that can limit long-term beef supply.
- In our view, collaboration is non-negotiable. A connected value chain – from breeders to finishers – is essential to unlock consistent supply, improve margins, and meet evolving consumer and market expectations for what is considered ethical, sustainable beef.
- Inaction could put New Zealand's social license and market access at risk. Reducing early calf slaughter is not just an economic imperative, it's a reputational one. A more integrated dairy-beef system could help protect New Zealand's global brand and future-proof its livestock sector.

The strategic moment for dairy-beef

New Zealand's dairy sector stands at a strategic crossroads. With nearly 2 million underutilized dairy calves born annually, the opportunity to build a scalable, profitable dairy-beef system is both urgent and compelling. At current market prices, the potential value of dairy-beef exceeds NZD 1.2 billion. Yet, realizing this potential requires coordinated action across breeding, rearing, and value chain relationships.

Investment in rearing infrastructure and regional hubs, alongside the setting of growth targets that avoid two winters in dairy-beef animals, will likely be critical. Equally, deeper collaboration across the supply chain – including the use of contracts, incentives, and data sharing – will likely be needed to ensure profitability and consistency. With global beef prices strong and social license pressures mounting, the time to act is now.

Achieving excellence in the dairy-beef sector involves multiple steps, including defining success, outlining the necessary actions, and developing strategies to advance New Zealand toward a robust, future-ready industry that serves farmers, processors, and consumers alike. Central to this

opportunity is an integrated value chain that works within its seasonal constraints and delivers consistent value to all participants.

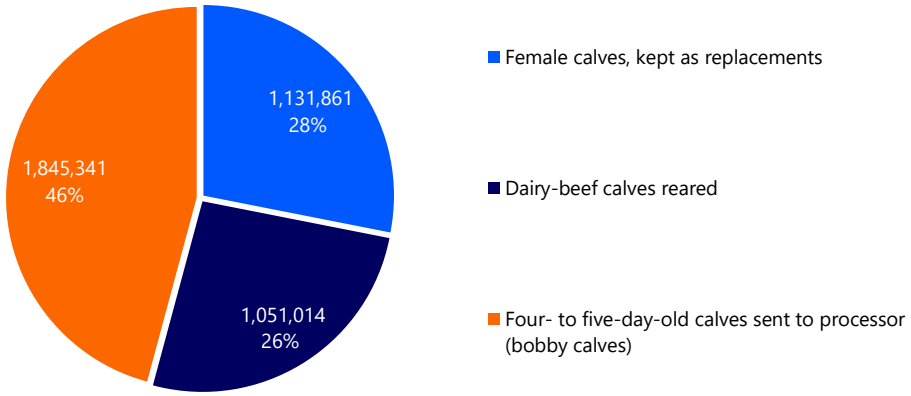
The NZD 1.2 billion dairy-beef opportunity

Each year, New Zealand's dairy farms produce around 4 million calves. Approximately 28% are retained as replacement dairy heifers, bred from top-tier dairy genetics (see figure 1). The remaining majority, over 70%, are surplus to dairy requirements. Just over one-quarter of calves born to dairy farmers are currently reared as dairy-beef. The remaining calves are often sent for processing at four to five days old. These surplus non-replacement dairy calves are referred to locally as bobby calves. Herein lies the opportunity to create more value from the almost 2 million calves that are currently underutilized.

Beyond risk mitigation linked to the perception of such a large number of bobby calves, the scale of the commercial opportunity for New Zealand's dairy-beef sector warrants serious attention. At current average market prices for the 2024/25 export season, rearing an additional 600,000 surplus calves could unlock well over NZD 1.2 billion in value.

Indeed, an additional opportunity lies in lifting the genetic merit of beef sires used within the current dairy-beef system. Even without broader system changes, over 500,000 of the 1.05 million dairy-beef calves reared in 2024 were likely sired by lower-merit bulls. Conservatively, this may have left 30kg of carcass weight unrealized per head. Based on average farmgate beef prices, this equates to more than NZD 115 million in missed value in current market terms – and this excludes further gains achievable through complementary technologies, which we discuss later in this report.

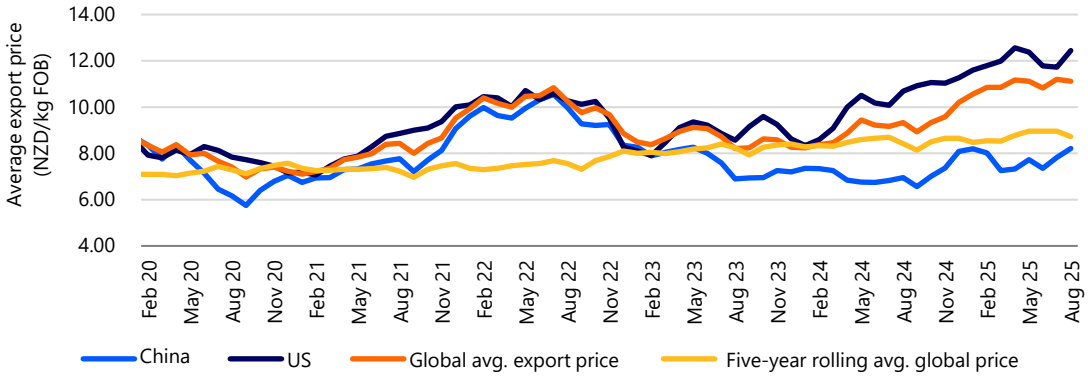
Figure 1: The estimated end use for New Zealand dairy calves in 2024



Source: Stats NZ, Beef + Lamb New Zealand (B+LNZ), DairyNZ, RaboResearch 2025

Global beef prices are forecast to remain strong amid lower inventories in the Northern Hemisphere. New Zealand average export prices have hit record highs in 2025 (see figure 2), potentially creating a lucrative window for New Zealand to expand its beef exports. While industry support and working groups are emerging, in our view more momentum is needed. Herd rebuilding and growth cycles take time, and coordinated action are likely to be essential.

Figure 2: New Zealand beef export prices by month, 2020-2025



Source: Stats NZ, RaboResearch 2025

The New Zealand dairy-beef chain

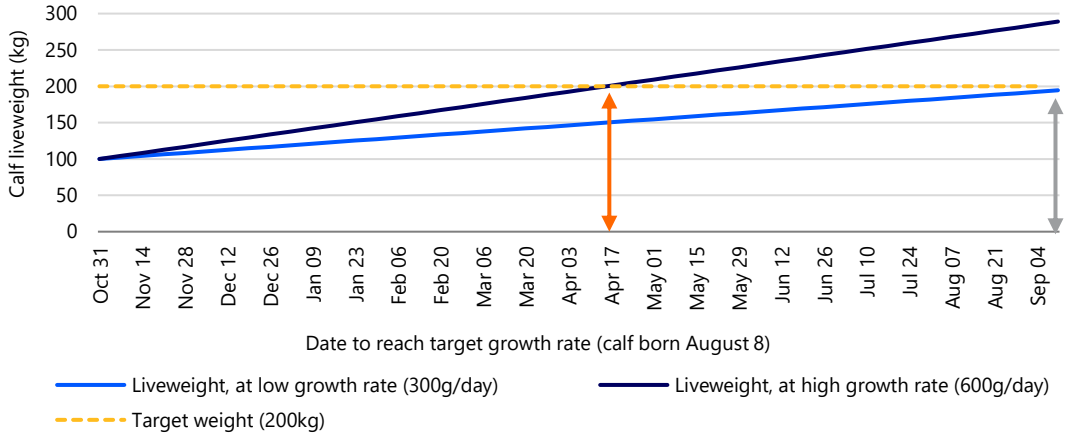
Breeder. Typically a dairy farmer, the breeder sells calves to rearers. Prices vary by breed, season, and birth timing.

Calf rearer. Rearers raise calves from four days old (30 to 45kg) to weaner weight (80 to 100kg) over 10 to 12 weeks. This is the most critical and risky stage, with profitability hinging on calf quality, purchase price, input costs, and sale price. Weather and health issues can significantly impact returns. In the past, volatile profitability has led to boom-bust cycles (see figure 6), affecting cattle supply and pricing.

Trader. Traders grow weaners from 100kg to 200kg over six to nine months. Poor genetics or low feed efficiency become evident here, impacting profitability. Spring-born calves that miss target weight before their first winter may require two winters on farm, reducing efficiency and increasing costs (see figure 3).

Finisher: Once calves reach 200kg (R1), finishers grow them to slaughter weight. This stage is usually more predictable, with profitability influenced by purchase timing and seasonal feed availability.

Figure 3: The aim is to get a calf to 200kg before its first winter; good growth rates are key



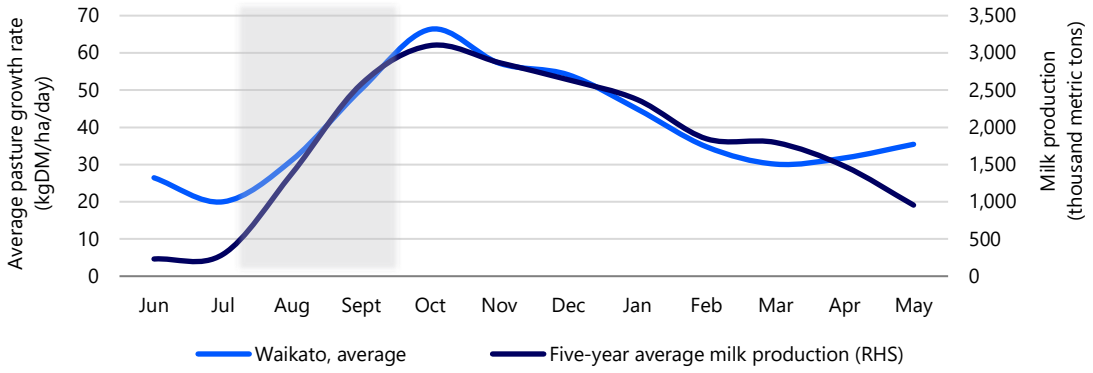
Note: This graph compares time to target weight at 300g/day vs. 600g/day growth for a spring-born calf, born on August 8, with a 200kg target liveweight,. At 600g/day, the target is reached by mid-April and at 300g/day, by mid-September (post-winter). Growth rates for 100kg to 200kg calves of 600g/day to 1 kg/day are considered good targets in New Zealand but may vary with pasture quality and region.
Source: DairyNZ, RaboResearch 2025

How New Zealand could improve its dairy-beef system

A seasonal dairy system shapes the dairy-beef challenge

New Zealand's dairy industry is based on farming systems that are predominantly pasture-based. New Zealand's temperate climate across two remote islands enables a year-round pasture grazing dairy system. The bulk of the country's herd has an early-spring calving pattern, which aims to match the dairy herd's feed demand with peak pasture growth (see figure 4). Subsequently, the majority (up to 70%) of dairy calves are usually born within a six-week period between the months of August and October. New Zealand's dairy sector relies on compact calving spreads to synchronize peak milk production with peak milk flows.

Figure 4: Pasture growth and milk production curve



Note: Greyed out box represents spring calving window on a spring-calving seasonal dairy farm in NZ.
Source: DairyNZ *Facts and Figures* 2023, DCANZ, RaboResearch 2025

This seasonal, pasture-based dairy system – while efficient for milk production – creates a concentrated calving window that can limit the capacity to rear all dairy calves born. This structural constraint is central to the dairy-beef challenge. In our view, only by cracking this will New Zealand unlock the dairy-beef opportunity.

Calving conundrum: A realistic path forward

By rethinking breeding strategies and timing, along with calf rearing systems, New Zealand can unlock significant value from non-replacement calves – both bobby and dairy-beef calves.

Breeding strategies: Increasing the use of appropriate beef genetics in dairy herds

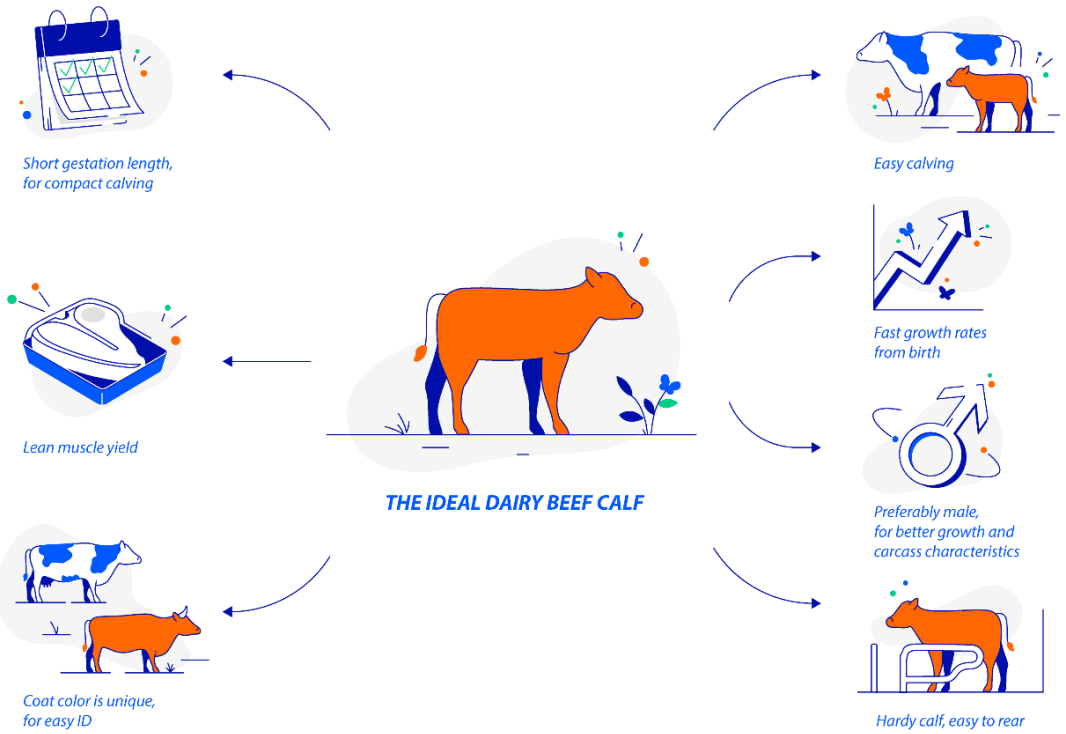
The breeding decisions made by dairy farmers at the start of the dairy-beef value chain can directly impact the quality and profitability of dairy-beef animals further down the line. A more strategic approach to breeding (in terms of both the genetics used and the timing of reproduction) can unlock significant value, without needing to overhaul the entire dairy herd.

New Zealand's dairy cows have traditionally been smaller framed and bred for feed conversion efficiency of grass to milk, not beef traits, which may negatively influence how their beef offspring are perceived. While half a calf's genetics come from the dam, the sire often has a greater collective influence. A single bull can affect hundreds of calves, and the performance gap between a high-index artificial insemination sire and a low-value bull is significant. Superior beef genetics can enhance growth, carcass traits, and consistency, meaning sire selection may be a key lever for improving dairy-beef value.

With strategic use of artificial insemination to improve beef genetics, in addition to the use of wearable technology and breed selection tools, dairy farmers have the potential to target essential dairy traits like short gestation and calving ease along with growth efficiency (see figure 5).

The potential economic upside for the dairy-beef industry is significant. Yet, to realize this opportunity, both dairy and beef sectors will likely need to support farmers with clear incentives, practical tools, and better feedback loops. Genetics companies, breeders, and both meat and dairy processors all have a role to play in building out dairy-beef programs that are aligned with market demand and profitability for all stages of the value chain.

Figure 5: Characteristics of the ideal dairy-beef calf



Source: RaboResearch 2025

Breeding strategies: Scaling up tools and technology for smarter breeding

Artificial insemination and semen straw technology may offer scalable solutions for improving dairy-beef calf quality.

First-calving heifers in pastoral systems present unique challenges compared to those in the feedlot or in-house systems often used overseas. Calving ease is critical due to smaller-framed heifers and early-season calving. These factors may limit options for beef genetics and contribute to the persistence of bobby calves. Increased use of sexed semen and targeted development of low-birthweight, high-genetic merit beef sires could help address this.

Male sexed beef semen presents future potential: While sexed semen is currently used primarily to produce female dairy replacements, expanding its use to generate male beef calves could help integrate these animals into the beef supply chain. This shift could require broader adoption of a full program of artificial insemination to access bull-beef with the highest genetic merit, with cost-effectiveness and clear value differentiation as key enablers for uptake.

Breeding strategies: Optimizing reproduction and calving timing for dairy-beef success

New Zealand's traditional spring calving peak is at odds with the evolving needs of dairy-beef systems. A flatter calving profile, particularly through increased adoption of autumn calving and/or split calving, could unlock better outcomes for calf rearing, infrastructure use, and labor management. Autumn calving is already gaining traction in regions north of Taupō, where summer dry and heat are common and irrigation is limited. This shift could help spread calf supply across the year, easing pressure on facilities and enabling dual-use of rearing sheds.

Climate volatility is another potential driver. With La Niña-like patterns becoming more frequent, flexible calving systems could help buffer farms against extremes in weather patterns, supporting more resilient feed and grazing strategies.

However, staggered calving does come with cost implications, especially outside the natural feed curve in regions like Canterbury and Southland. Supplementary feed needs may rise, potentially eroding cost advantages. Yet, for farms further north and those that could hedge their bets, the long-term benefit of a more consistent beef supply, improved labor distribution, and reduced seasonal bottlenecks could outweigh these challenges.

If New Zealand is serious about maximizing dairy-beef value, it's time to rethink the norms of times gone by.

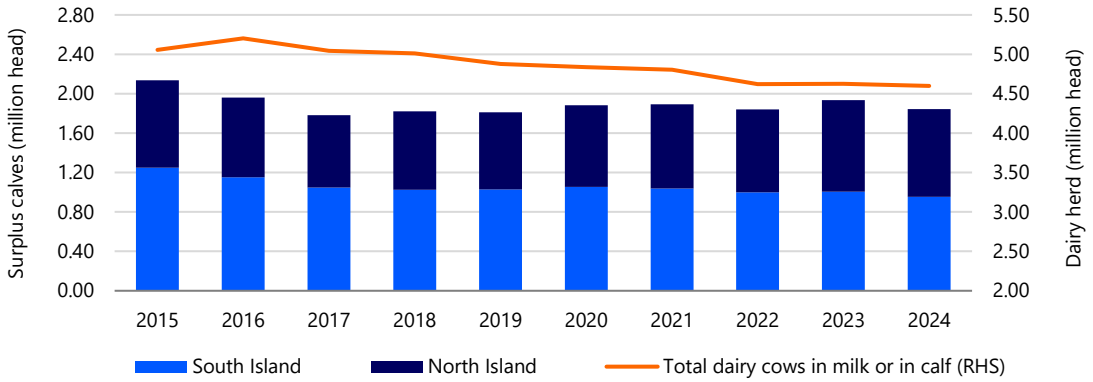
Simplified breed selection tools are essential. To support uptake of dairy-beef strategies that span both dairy and beef industries, breed selection information must be practical, transparent, and easily to understand for both dairy and beef producers.

Calf rearing: Investing in calves and calf rearers

Since 2017, New Zealand has consistently slaughtered around 1.8 million to 1.9 million calves annually (see figure 6). These numbers fluctuate by up to around 7% each year, driven by factors such as beef market prices, dairy profitability, and on-farm rearing capacity, all of which have significant implications for total beef supply.

In 2023, slaughter rates of four-day-old dairy calves peaked, reaching the highest level since 2015. As a result, the reduced number of dairy-beef calves reared in 2023 is impacting the supply chain today. The reduced stock numbers may be limiting New Zealand's ability to fully capitalize on strong global demand and current rising export prices.

Figure 6: Dairy cow and bobby calf numbers, 2015-2024



Source: DairyNZ, Stats NZ, RaboResearch 2025

If New Zealand wants consistent beef supply and long-term value, it must invest more in calves. In our view, the industry also needs to rethink economic models and incentives for calf rearing to avoid future boom-bust rearing cycles.

Calf rearers carry the highest risk in the dairy-beef chain, with profitability hinging on calf quality, input costs, and sale price, and further challenges posed by weather and health issues. Poor genetics slow growth, with calves often requiring two winters on farm, reducing efficiency. Traders and finishers also face losses if calves underperform. A more profitable, predictable system depends on better genetics and a consistent, high-quality calf supply.

Calf rearing: Rearing 100% of non-replacement animals in New Zealand?

Systematic constraints make the necessary move to rearing more dairy-beef very challenging. Assuming the New Zealand seasonal system remains core to its dairy industry, some nuances to consider for raising 100% of all calves born from the dairy herd include:

- **Superior calf management:** Raising all calves would result in a large volume of calves in a short space of time. Excellent management would be required to prevent disease and health issues. Autumn calving in some areas could help navigate some of the weather impacts on animal health, but it may also raise costs.
- **Capital investment for large-scale rearing facilities:** Capital would be required to develop additional rearing spaces that could manage the highest point of the calving period. Many facilities would most likely be underutilized across the year outside of either one or two 12-week rearing periods.
- **Labor force:** More calves would require more staff, but over a condensed, seasonal period (assuming one to two calving periods a year). Retention of great staff could be challenging over such a short window, in the absence of the rearing facility being used more than a couple of times a year.
- **Throughput for large-scale calving facilities:** Off-farm rearing through large external facilities could help manage the rearing of all dairy-born calves in New Zealand. Some large-scale operators may consider buying dairy-beef calves sourced from third parties to maintain use of calf rearing facilities year-round, where financially viable. However, two key challenges remain: All players in the dairy-beef chain, including calf rearers, must have positive margins, and the seasonal influx of calves may still limit full asset utilization.

This is an area where realism may outweigh optimism – at least in the immediate future. The reality of rearing 100% of all calves born on a dairy farm presents challenges within New Zealand's pastoral-based system. Rearing most calves born in dairy farming operations would likely require a complete change in either management practices, farm systems, or land use across New Zealand – depending on whether calves are reared on dairy farms or within specific calf-rearing hubs. Importantly, land availability to finish these animals is a critical constraint. Accommodating all calves as they hit 100kg then 200+kg liveweight on farms could put pressure on existing livestock systems, particularly for beef cows and breeding ewes, which are integral to New Zealand's red meat sector.

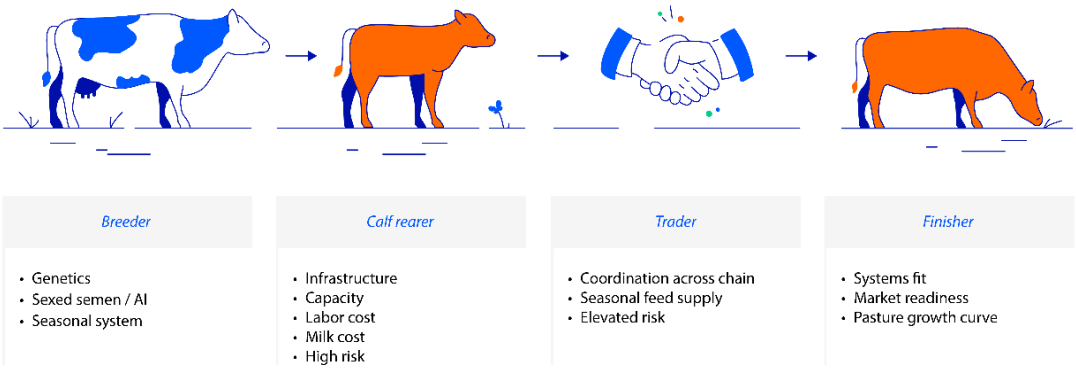
In the absence of legislative change, or changes to export market access, a conceivable and more pragmatic aspiration for New Zealand could be to lift rearing rates from around 54% (including heifer replacements) to approximately 70%. This would likely require some targeted farm system changes in New Zealand's dairy or sheep and beef farms, supported by strategies set out in this report.

Strategic partnerships: Aligning New Zealand's beef and dairy sectors

Each link in the dairy-beef value chain must understand the farming systems, strategies, and needs of the others to build strong relationships and trusted feedback loops and to improve the status quo. For example, rearers should communicate breed and artificial insemination straw preferences to dairy farmers while maintaining steady relationships with calf offtakers. Finishers must share performance feedback on weaners to inform upstream decisions.

Beef farmers want dairy farmers to view dairy-beef calves as an investment – not a byproduct. While market signals help, they often benefit only one part of the chain. True progress depends on mutual understanding and collaboration across all players, including dairy and meat processors. Success requires a shared commitment.

Figure 7: Considerations for the New Zealand dairy-beef supply chain



Source: RaboResearch 2025

Strategic dairy-beef marketing is required

To maximize dairy-beef value over and above commodity beef, processors and marketers will need to work together to position dairy-beef as a premium, ethical, and sustainable product. Opportunities exist to develop dairy-beef brands for specific market segments that focus on the efficiencies of the animal, particularly in export markets like the US and the EU where consumer demand preferences are likely to match product supply.

Inaction on dairy-beef presents a risk

Greater uptake of dairy-beef in New Zealand could help protect the sector's social license by reducing early calf culling. As urban populations grow and consumer scrutiny intensifies, the annual slaughter of nearly 2 million four- to five-day-old calves risks being seen as ethically unacceptable, potentially influencing public sentiment and policy.

Market access is also at stake. Major buyers like Nestlé and Mars are adopting sustainability standards, including requirements related to their emissions footprints. It is entirely a possibility that there will be future pressure for production systems to adapt to customers' perceptions of ethical sourcing.

Globally, New Zealand stands out for its high non-reared calf slaughter rate – over 40%, compared to less than 2% in the US.

A more connected dairy-beef system may offer both tangible and intangible benefits: improved productivity, profitability, and resilience, while safeguarding New Zealand's export reputation and social license.

There is currently several dairy-beef programs in action in New Zealand. In addition, industry bodies and the Ministry for Primary Industries are collaborating to establish an industry-wide program to advance dairy-beef production and value in New Zealand.

Case study: Pāmu embarking on a dairy-beef future at scale

Pāmu, a government-owned farming enterprise across New Zealand, has set a clear and ambitious goal: to eliminate the slaughter of bobby calves across the organization's dairy farms by rearing all non-replacement dairy calves for beef production by 2030. Pāmu's strategy may offer a blueprint for integrating dairy and beef systems across the country at scale.

Pāmu first began its dairy-beef journey in 2016. It gained significant momentum in recent years, with the dairy business going from rearing only replacement heifer calves to rearing 69% of all calves born in the 2025 fiscal year. Pāmu plans to rear 10,500 calves annually by the 2026/27, season with full implementation targeted across all 42 of its dairy farms – milking 40,000 cows – and rearing 100% of calves by the end of the decade.

Central to this transformation is genetic innovation. Through its investment in Focus Genetics, Pāmu has optimized a cross of Black Angus, Stabiliser, and Charolais, focusing on calving ease alongside high growth and carcass traits with good markings for calf identification. This genetic strategy ensures that dairy-origin calves are both viable and commercially valuable.

Infrastructure investment has been equally critical. Pāmu has built or converted a number of large-scale calf rearing facilities across its farms and adopted digital platforms like FarmIQ to enhance traceability and farm performance. These investments have reportedly contributed to measurable gains: Carcass weights are up 10% year-over-year, and conception rates have improved to 71% over six weeks.

While Pāmu's progress is impressive, it is not without challenges. The approach requires significant investment, careful planning, and long-term commitment. Still, it proves that with the right tools – namely better beef genetics, improved infrastructure, and a strong, values-led plan/management – dairy-beef systems are possible in pastoral New Zealand.

As the sector looks ahead, Pāmu's integrated approach may serve as an example for farming businesses to emulate to some degree, even if the path forward remains complex and nuanced.

New Zealand dairy-beef reimagined

There is no fast, easy solution for excess underutilized calves in New Zealand. Practical challenges, such as reproduction of young dairy heifers, seasonal calving, summer dry in non-irrigated regions, and regional isolation, may limit trading opportunities and the volume of surplus calves that can be raised. Land availability for finishing extra stock is also constrained in some areas.

Completely eliminating bobby calves may not be practical or achievable in the short term without significant industry change, but significantly reducing their numbers is a realistic and worthwhile goal. We believe that New Zealand can reduce bobby calf numbers and better utilize those retained within the beef supply chain, while also improving the quality of dairy-beef calves already being reared.

Unlocking system-wide value will likely require a coordinated strategy that incorporates genetics improvements, data systems, risk-sharing, and market alignment. This may include:

A national dairy-beef breeding strategy: A pan-sector approach, backed by robust data and aligned with economic, genetic, and environmental goals, is essential. Support from the Ministry for Primary Industries through the Primary Sector Growth Fund could accelerate adoption and scale.

Calf "passports" and data integration: A traceability system linking genetic characteristics to each calf's permanent record – similar to Ireland's model, which we discuss in this global report on dairy-beef – would improve transparency, reward investment in superior genetics, and support

marketability. This initiative could be tied to contract pricing and track calves through multiple ownership changes.

Risk reallocation across the chain: Rearers often carry disproportionate risk. Models such as performance-based management fees or fixed-price contracts from insemination (with premiums tied to growth) could provide financial certainty and incentivize quality breeding and rearing.

Processor involvement and value chain ownership: Dairy and meat processors could lead in building an end-to-end dairy-beef strategy. With declining livestock numbers, they have a vested interest in securing throughput and supporting system-wide integration.

Continued development of dairy-beef programs should also be informed by market feedback. A rapid feedback loop between genetics providers and end users could help ensure breeding decisions remain commercially viable.

Imprint

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