PĀMU™
FARMS OF
NEW ZEALAND

DAIRY BEEF

THE INTEGRATED FUTURE OF FARMING

Pāmu is aiming to rear all calves from its dairy herds for meat production by 2030.

Dairy and beef farming have evolved into quite different businesses in Aotearoa New Zealand. A large percentage of calves born on dairy farms are surplus to the needs of dairy farms, while beef animals are selected and reared separately for meat. At Pāmu we are combining the two types of farming to increase efficiency and profitability. We also believe these system changes will contribute to our goals of reducing greenhouse gas emissions. We are collaborating with partners in industry and research, and sharing our learnings with farmers and rural professionals.

What are the reasons for moving to dairy beef?

As consumers' interest in the ethical standards of food systems increases, practices such as processing very young animals are challenged. Retailers in the UK, North America and the EU are already demanding their local milk suppliers meet standards that limit sending very young animals to slaughter. It is advantageous to continue the integration of dairy and livestock that already occurs, with 70% beef coming from dairy.

Dairy beef has advantages to both dairy and beef industries

- We can create a stock class with the best attributes of different breeds, apt for prime cuts and a lean manufacturing beef
- Reduction in livestock farms' GHG emissions intensity / kg LWT
- Once bred-heifers that bring lighter animals onto hill country
- Reduces system duplication as beef farmers do not need to breed their own animals
- Transparent, traceable grass-fed beef from pasture to plate
- Improved animal welfare outcomes as we select for robust and easy to calve animals
- Jobs in the regions, calf rearing industry (new sharemilkers).

Can dairy beef be a superior product?

Dairy beef progeny data shows it can achieve as good a carcass quality as beef. Getting the right sire genetics is key. Some dairy factors such as Friesian growth rate and Jersey marbling offer positive attributes to meat. Unappealing yellow fat can be managed with genetics and feeding.

Addressing the challenges

Aotearoa New Zealand dairy products are valued for our pastoral farming. However due to our more natural, seasonal approach, most calves are born in spring and need to be reared at the same time. This means big changes to farm systems, and new skills to be developed, from calf rearing, to grazing, to processing.

Calf-rearing at scale

We are investing in our calf-rearing capacity and developing best practice calf care. At our Exeter facility near Taupō we rear 3,000 calves inhouse. A woolshed at the West Coast Weka complex has been converted to rear 600 calves, and another shed with capacity for up to 900 calves is in planning.

Late-born calves

Pāmu already takes 14,000 dairy beef calves to rear in its North Island facility. There is a bigger challenge of taking all calves from a dairy block and rearing and finishing them all profitably; both calves that have less weight potential, and late-born calves.

Fodder and finishing

Such animals need specialist feed to ensure future success and growth. We are investigating alternative pastures such as lucerne and other forages that offer both improved growth and better soil outcomes.

DAIRY FARMS' FOCUS	LIVESTOCK FARMS' FOCUS
Mating plans	**Data-informed decision making**
Genetics	Agronomy adaption
Rearing practices	Stock policy
Animal health	Profitability
Nutrition	·Seasonality of workload

Changing our farm systems

We are evolving the way we farm, to increase the synergies between farms and leveraging our scale. Different farms play roles in the process. Calves are reared to 100 kg then transferred to one of our properties and grown on to 200 kg+ before the end of April. The cattle are then finished as either bull, prime steer or heifer, veal, once bred heifer, as a replacement for a dairy beef cross breeding cow herd, or sold as high-quality store cattle.

A multi-faceted approach to change

Through Focus Genetics we are looking at the needs of both dairy and livestock sectors, and Pāmu is investing in technology to support the dairy beef strategy:

- Sexed semen to ensure females as dairy herd replacements
- Selected cross-breeding of easy calving, high performance beef bull sires with dairy cows
- Wearables for precision data on each animal
- Investment in calf-rearing capacity, including best practice calf care.
- Development of farm systems and expertise to farm large numbers of young animals on our livestock properties.

Genetics is key

Our increased understanding and expertise in genetics means we can develop animals with traits that will work for dairy cows (such as a short gestation and easy calving); and that also have the best meat animal attributes including robust growth, feed efficiency, and great quality meat.

Beef + Lamb New Zealand has been running dairy beef progeny tests for eight years, with the livestock running on Pāmu farms for the last five, and including experts from Focus Genetics, Massey and LIC.

Focus Genetics is establishing a Silver Stabilizers composite breeding programme in which a small nucleus herd of Stabilizer cows will have the Charolais coat colour dilution gene introgression to produce silver calves when used in dairy herds.

Bulls from this nucleus will be multiplied out via Angus cow herds and the resulting unrecorded bull calves used as yearlings over dairy cows. This allows large numbers of bulls to be produced from a relatively small, recorded nucleus.

Where are we on our journey?

Pāmu is currently raising 50% of the calves produced by our dairy herds. The next milestone is 75% by the end of FY26. We acknowledge that the last 20% of our 2030 goal will be challenging and don't yet have all the answers.

Sharing knowledge as we go

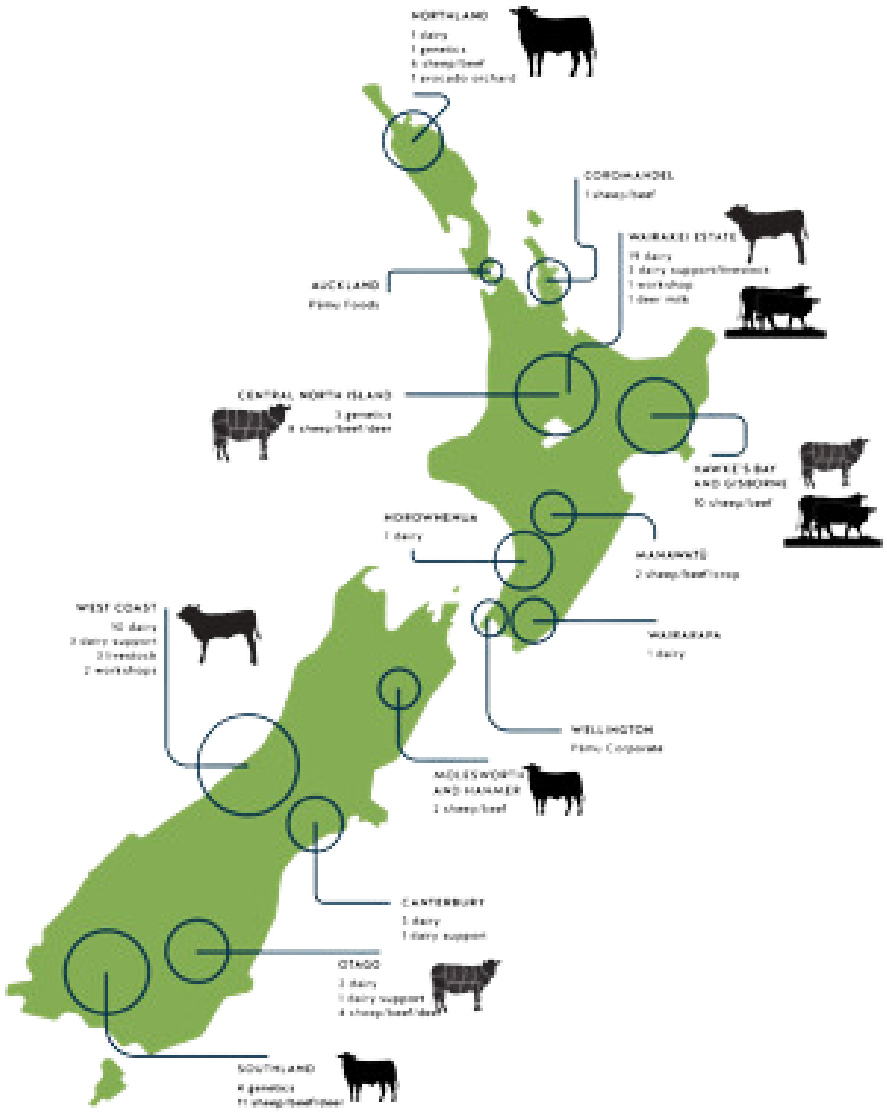
We continue to learn from experts, industry partners, and our farming peers. We continue to seek input across our stakeholders to support the industry to address the challenges of the dairy beef strategy.

.

DAIRY BEEF

THE INTEGRATED FUTURE OF FARMING

PĀMU™
FARMS OF
NEW ZEALAND



Integrated farming approach

Dairy beef as a concept is not new, and in Aotearoa New Zealand about 70% of total beef is estimated to originate from dairy - bobby calves, surplus heifers, bulls, and cull cows. Most bulls and cull cows finish as manufacturing beef. The difference is that we are developing a new stock class, and putting systems into place, to make this farming change at a large scale across Aotearoa New Zealand, and share our learnings with farmers across the country.

communications@pamu.co.nz

December 2023