



# PRODUCTIVITY & PROFITABILITY

*series*

## Growing Beef from Dairy

Presenter: Callen Thompson



# Outline

- Setting the scene - What is Dairy-Beef?
- The Growing Beef From Dairy project
- Opportunities for Dairy-Beef
- Some of the barriers
- Interested in Dairy-Beef? What are your next steps?

# Growing Beef from Dairy (GBfD)



This project is funded 50:50 from Dairy Australia and Meat and Livestock Australia



AgSTAR Project team

Maria Thompson, Jane Pryor, Callen Thompson, Jane Phillips & Michael Campbell



# Question:

What sort of animal do you think of when you hear about dairy calves going into the beef supply chain?

This:



Source: Jacqueline Lynch ABC News

# Or This:



# The situation



35% of calves kept as replacement dairy heifers



Surplus calves (est. 900,000)

Calf pathways

Surplus dairy heifers (sale/ export)

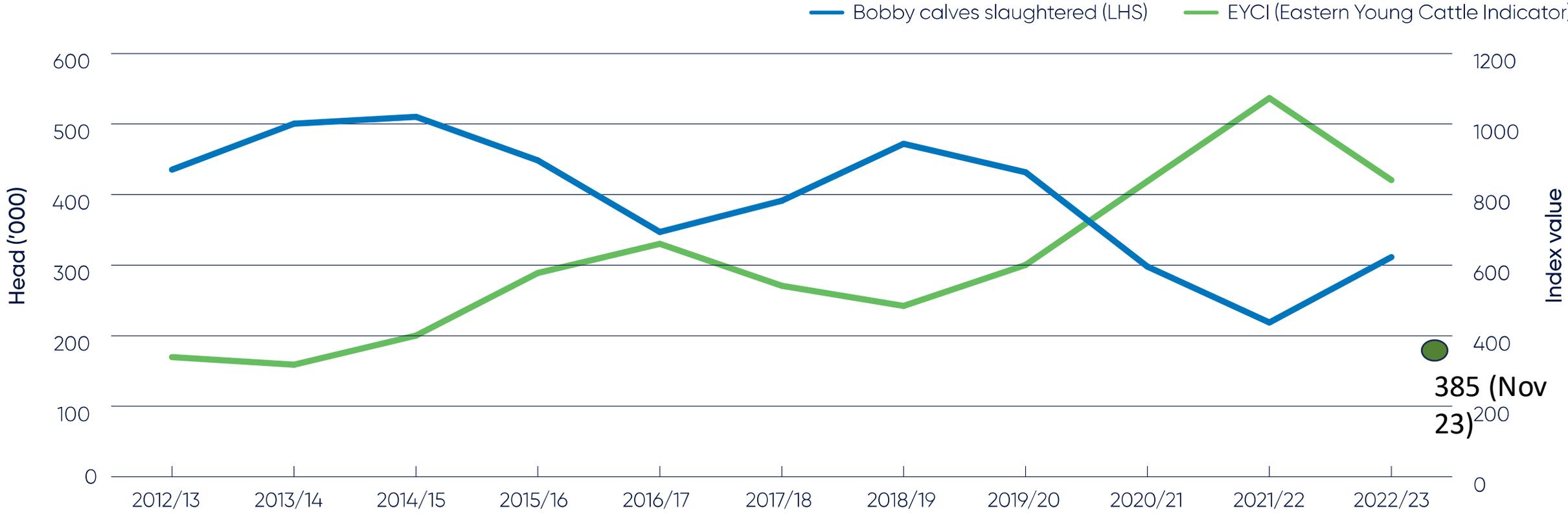
Die/ euthanised on farm

Bobby calves (slaughtered at 5-30 days)

Dairy beef (straight dairy or beef cross)

Source ABS 2022 + DA 2022 Animal Husbandry survey

# Surplus dairy calves: Wicked problem or underutilised opportunity?



Total leviabile quantity of bobby calves slaughtered by fiscal year. Source: DAFF (Bobby calf slaughtered; MLA (EYCI)

If surplus calves could be finished to a 300kg carcass =  
\$550 million per annum industry turnover (MLA)

# Consumer pull

ABC RURAL

## Abattoir suspension results in farmers culling cows due to Tasmanian production line shutdown

By Alex Russell



HOME OUR FAMILY IN MEMORY NEWS VOLUNTEER ABOUT US CONTACT

## The story of rescued dairy calves Betty & Bill

In the lead up to Easter, we thought it was time to share the story of Betty & Bill, in hopes you will choose kindness this Easter by opting to purchase some of the many dairy free easter chocolates available in supermarkets and other retailers.

13 APRIL 2022



nger 'useful'.

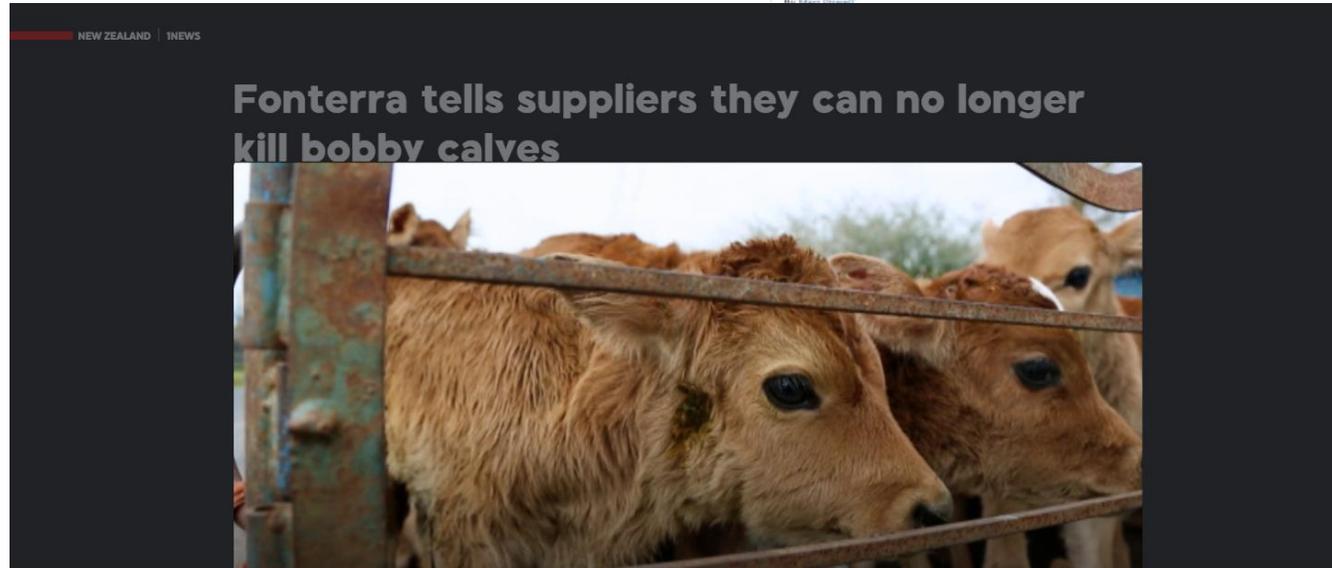
h they are no longer profitable. 6 years of age, due to illness, s. They are transported to their weak, bony frames tell a story

lated (ABC

ighest secret.

deemed either useful (females ng herd) or not (typically males ms those calves destined for 00 tiny bobby calves are killed year first week of life. These babies the dairy industry.

nouth?



## Fonterra tells suppliers they can no longer kill bobby calves



The dairy giant is implementing new rules to stop the practice.

SHARE ME



Dairy giant Fonterra is implementing new rules to stop its suppliers from killing freshly born "bobby calves" on the farm.

Ditch Dairy

What's next?: There are fears that unless the abattoir gets back online soon, many thousands of animals will be culled on farm.



# So what is Dairy-Beef

## Dairy-Beef

**Beef produced from dairy breeds or their crosses.  
This includes cattle raised primarily for beef  
production from dairy herds.**

Beef on Dairy

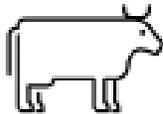
Dairy Beef

# Current markets

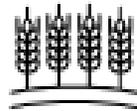
- Week Old – Bobby Calf Truck, Calf Rearer
- 110kg / 12 weeks – fully weaned calf
- 250-400kg Backgrounder animal
- 450-700kg Finished animal

# Growing Beef from Dairy Project

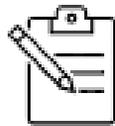
Package to help farmers with:



Breeding

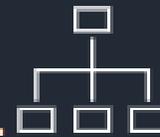


Feeding



Management

Focus on a  
target  
market

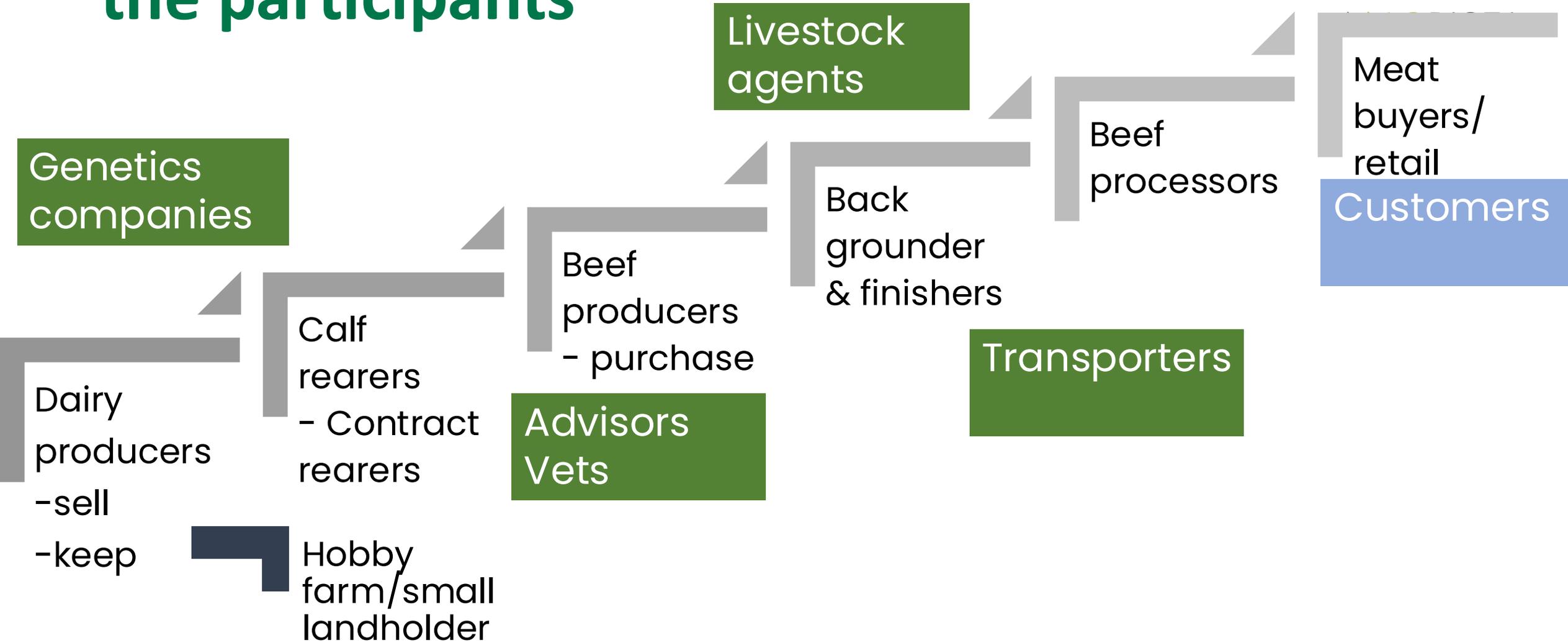


# Objective

- Develop a bespoke extension and adoption package to assist farmers to make better informed decisions on the management of surplus calves with a focus on the target market for the calves.

Improved welfare & carcass quality for surplus calves

# Understanding the participants



# Diverse participants – diverse outcomes

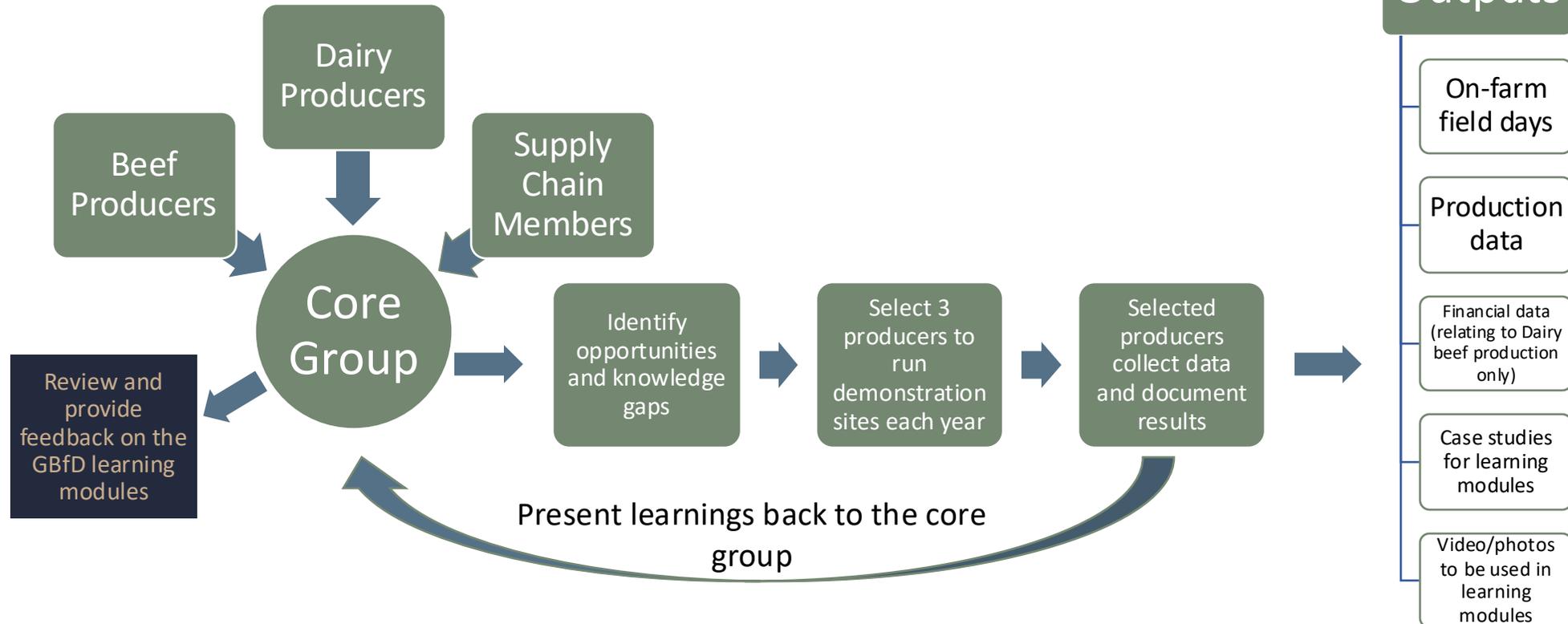


Photo: Michael Campbell  
Legendairy Beef

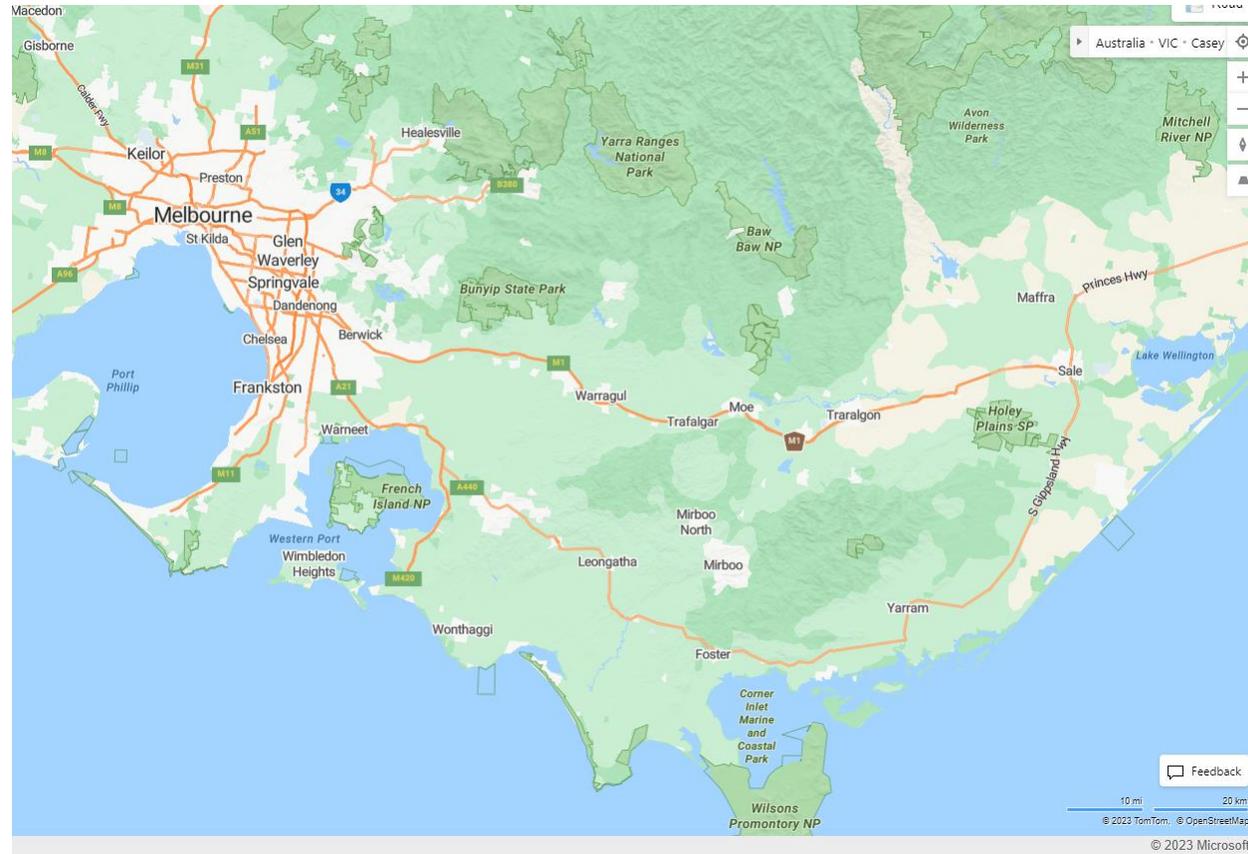
# Modules

1. Introduction and decision tree
2. Breeding and genetics
3. Markets including meat quality
4. Surplus calf/dairy beef pre-weaning nutrition
5. Sourcing healthy calves including biosecurity
6. Traceability and food safety
7. Nutrition post weaning including pastures and supplementation
8. Transport

# Producer Demonstration Site



# PDS Location – South Gippsland



# Members

- Facilitator – Kristen Davies, GippsDairy
- 10 Dairy farmers
- Genetics company
- Advisor/consultants
- Vets
- Greenham's
- Elite Dairy Beef



# Opportunities for beef producers in Dairy Beef



- Reduced carbon footprint
- Potential for high meat quality
- Consistency of supply



# Reduce carbon footprint



- 50.4% reduction in our absolute scope 1 and 2 GHG emissions related to our restaurants and offices by the end of 2030, from a 2018 baseline.
- 50.4% reduction in our absolute scope 3 GHG emissions related to facility, logistics and plastic packaging in our supply chain by the end of 2030, from a 2018 baseline.
- 16% reduction in our absolute scope 3 forests, land and agriculture (FLAG) GHG emissions related to beef and chicken farming activity by the end of 2030, from a 2018 baseline.



# Scope 1, 2 & 3

- Scope 1 - Direct emissions from sources that are owned or controlled by the business
- Scope 2 - Indirect emissions from the generation of purchased energy consumed by the business
- Scope 3 - All other indirect emissions that occur in the value chain, both upstream and downstream

# Beef producer emissions

## Scope 1



## Scope 2



## Scope 3



# Fast food restaurant emissions

Scope 1

Scope 2

Scope 3

- 50.4% reduction in our absolute scope 1 and 2 GHG emissions related to our restaurants and offices by the end of 2030, from a 2018 baseline.
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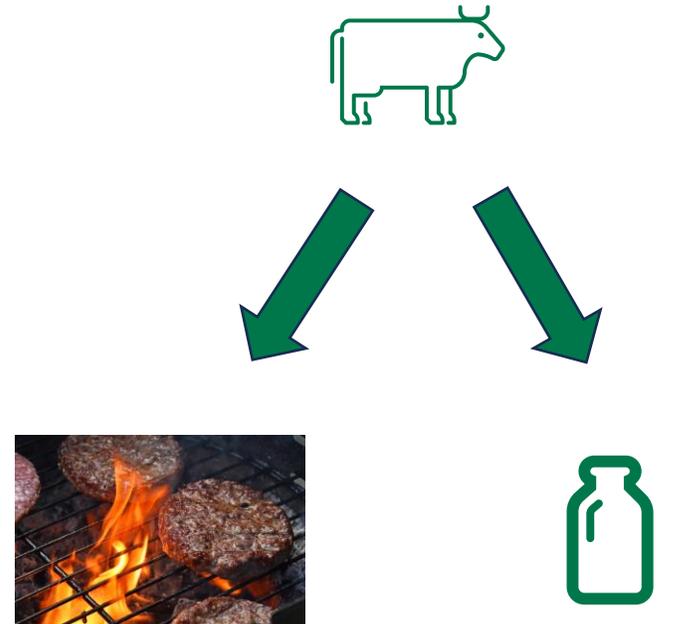
# So why is the emissions from Dairy Beef lower than Beef?

Beef CO<sub>2</sub> Equivalent emissions



100%

Dairy CO<sub>2</sub> Equivalent emissions



~15%

~85%

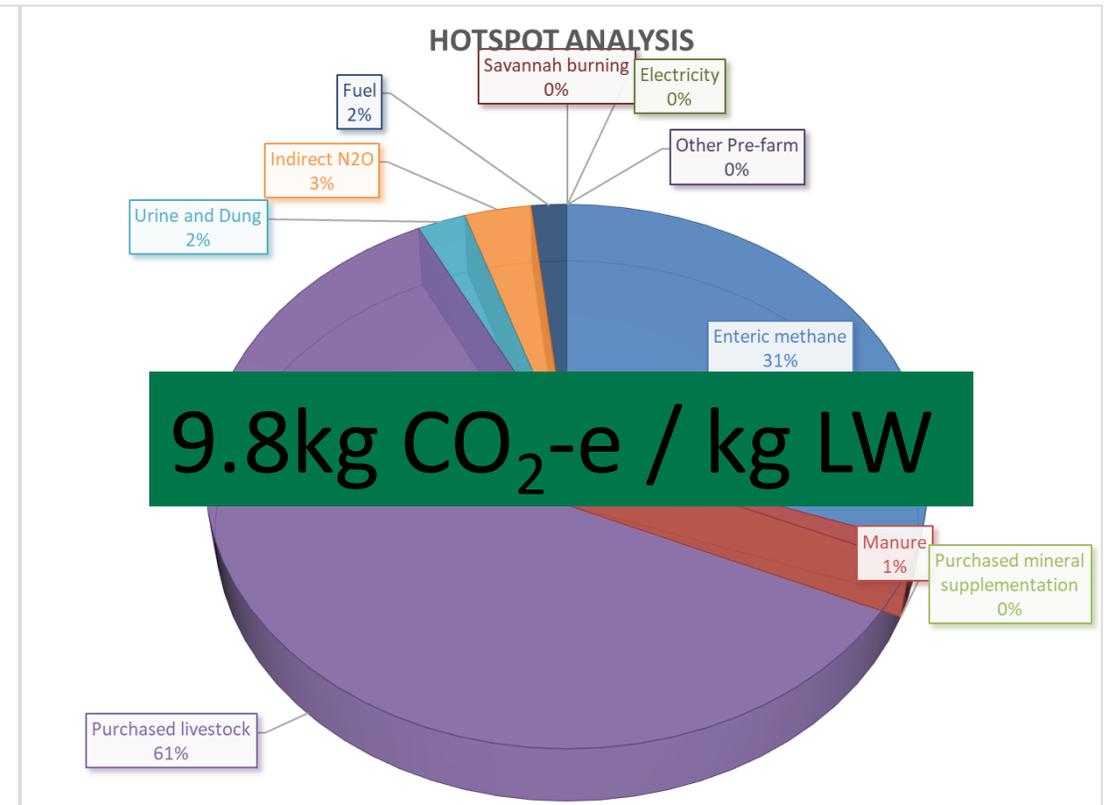
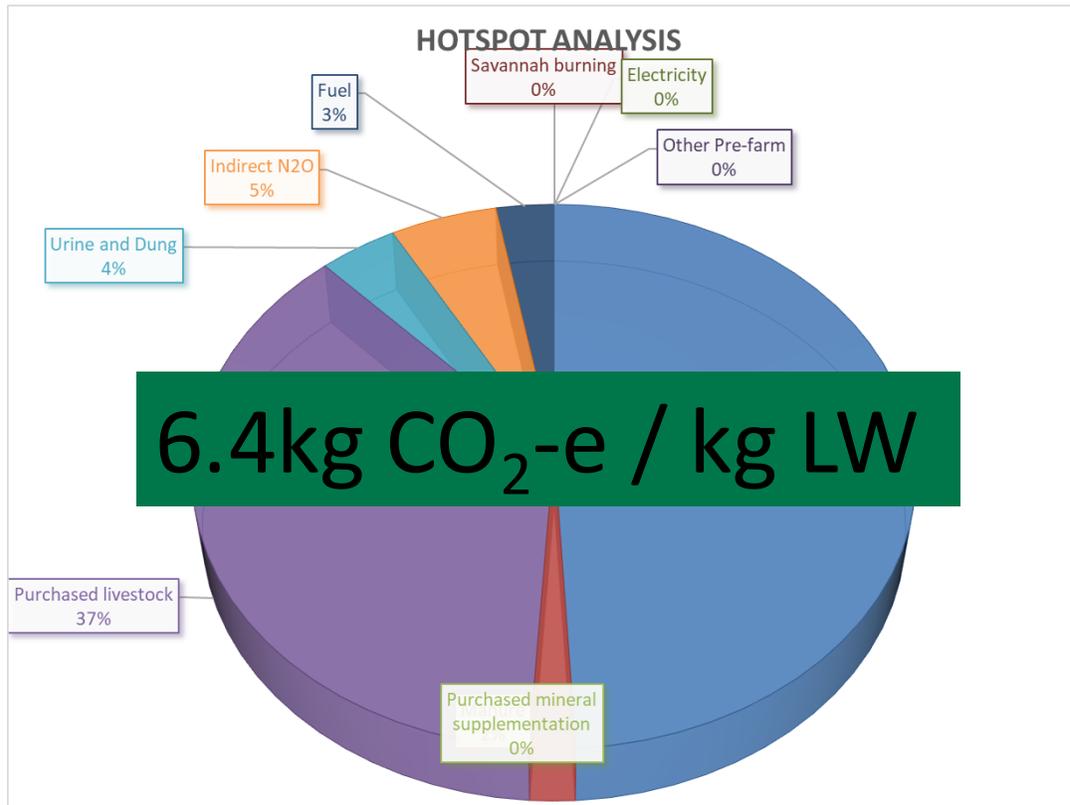
# Beef trading scenario

- 100 steers
- Grazing forage oats
- Purchased at 200kg
- Sold at 420kg
- Comparing Beef to Dairy-Beef using SB-GAF v2.4

(Primary Industries Climate Challenges Centre [piccc.org.au](http://piccc.org.au))

# Dairy-Beef

# Beef



# Any difference in eating quality of dairy beef compared to beef breeds?

- The following data come from the MSA funded project:

Creating a dairy beef supply chain to increase the value and volume of beef and veal products

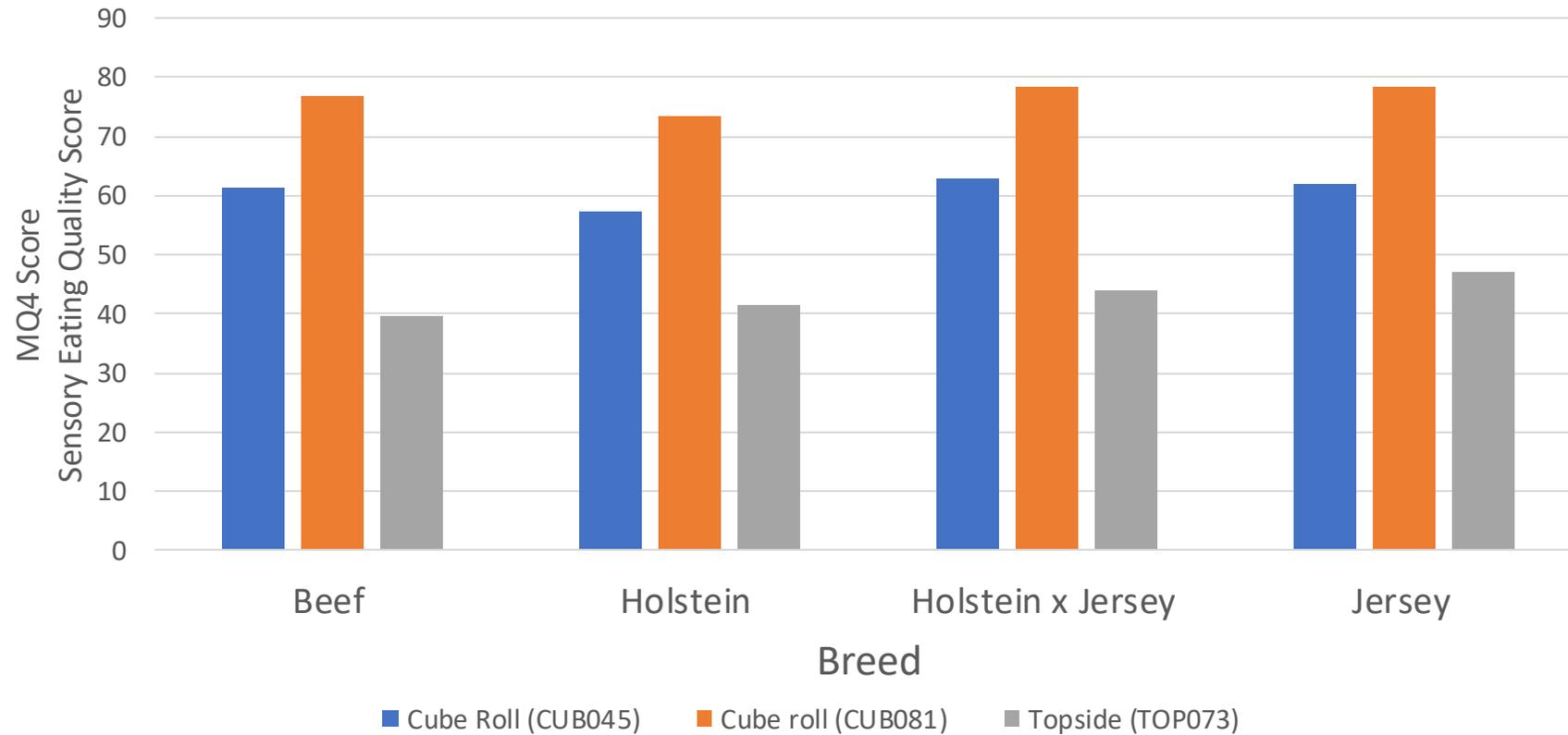
Research conducted by: Rod Polkinghorne, Ian Lean, Helen Golder, Holly Cuthbertson, Garth Tarr, Veronika Vicic, Michael Campbell and Jane Quinn

# Results - Holstein vs. Beef

Outcome	Holstein		Beef	
	Low	High	Low	High
Average daily gain on farms (kg/d)	0.78	0.96	1.37	1.49
Average daily gain feedlot (kg/d)	1.36	1.31	1.28	1.26
Carcase weight (kg)	293.8	303.4	304.9	310.1
Hump height (mm)	59.1	61.4	68.5	65.9
Eye muscle area (cm <sup>2</sup> )	70.4	70.3	75.0	78.3
Rib fat (mm)	5.69	6.53	10.3	10.7
Marble (score 1 to 1190)	372.2	371.0	418.3	402.9
Ossification (score 100 to 590)	133.9	136.7	133.1	131.3
Ultimate pH	5.66	5.67	5.58	5.59
Meat Standards Australia Index	60.56	60.43	63.04	63.25

Source: Kate Neath, MSA

# Eating Quality



Source: Kate Neath, MSA



Photo: Michael Campbell  
Legendairy Beef

# Consistency of supply

- The national dairy herd size doesn't fluctuate as much as the beef herd
- 42% of Australian dairy herds record performance data (DataGene Herd Improvement Report)
- Artificial insemination is used in approximately 84% of commercial and stud stock dairy herds (Repro360)

# Barriers in dairy beef



Source: Jacqueline Lynch ABC News



# Ability to Sell Dairy-Beef

- Processor acceptance
- Quality of product
- Suitability to kill chain
- Customer acceptance (Loin cut shape)
- Lack of calf rearers in supply chain



# Rearing Calves

- Infrastructure
- Knowledge and ability of people rearing calves
- Space in rearing sheds (on dairy farms)
- Staff time
- Sale price

# Markets and Marketing

- Dairy farmers not connected to beef supply chain
- Livestock agents and advisors knowledge and attitude
- Processors/meat industry attitude to dairy beef
- Reactivity to current market
- Influence of previous bad experience

# So are you interested in getting involved in Dairy-Beef?



## Breed, feed and manage Dairy-Beef for your target market



# What does y

Discover Our Beef   Supply Us Cattle   Work With Us   About   **Greenham**   1300 548 378   Greenham Connect

## Supplying the program

Greenham can offer forward contracts or spot prices for eligible accredited calves. Price premiums are available for farms using approved genetics.

Eligible cattle can be marketed under the GDBP at the following stages:

<b>Joining/birth:</b> Greenham can take ownership from 150kg onwards.	<b>Weaned calves:</b> weaned calves at 150kg+ liveweight.	<b>Backgrounders:</b> backgrounders at 300kg-450kg liveweight.	<b>Finished cattle:</b> finished cattle at ~600kg liveweight.

To be eligible for financial premiums when supplying Greenham, cattle consigned under the GDBP must be:

Raising claim	Key requirement
100% grassfed	Not fed grain or grain by-products. Grain-free starter rations are commercially available today.
Lifetime traceable	Cattle must be individually traceable for their whole lives. Traceability can be recorded using NLS tags and further strengthened by farm management tags and on-farm record keeping.
Lifetime antibiotic-free	Eligible cattle must not be treated with antibiotics or ionophores (e.g., Rumensin), including in milk replacer, lick blocks or feed. Antibiotic-free milk replacers are commercially available at feed stores today.
No added hormones	Cattle must be HGP-free and not fed finishing diets that contain steroids.
GMO-free	Supplementary feed cannot contain genetically modified ingredients.
Free range	Cattle must never be confined for intensive feeding. Once weaned, calves should have continuous access to pasture.
Certified Humane®	High welfare outcomes are important to Greenham, our customers, and our loyal cattle suppliers. Request a copy of the Greenham Dairy Beef Program for more information.
Beef x dairy genetics	Cattle must be at least 50% beef genetics.
Meat Standards Australia (MSA) eligible	Cattle must come from an MSA-registered property and meet the minimum requirements for MSA grading.



# Genetics

- Understand the market you are selling into
- Speak to the dairy farmer/rearer you are buying calves off



# Sourcing healthy calves

- If sourcing cattle directly from farm, ask about colostrum management
- Physical appearance Calves should:
  - Be seven days old or more
  - Well grown for their age
  - Have supple skin and a shiny coat
  - Be alert and bright-eyed
  - Have a dry and healed navel
  - Show reasonable conformation
  - No evidence of scours



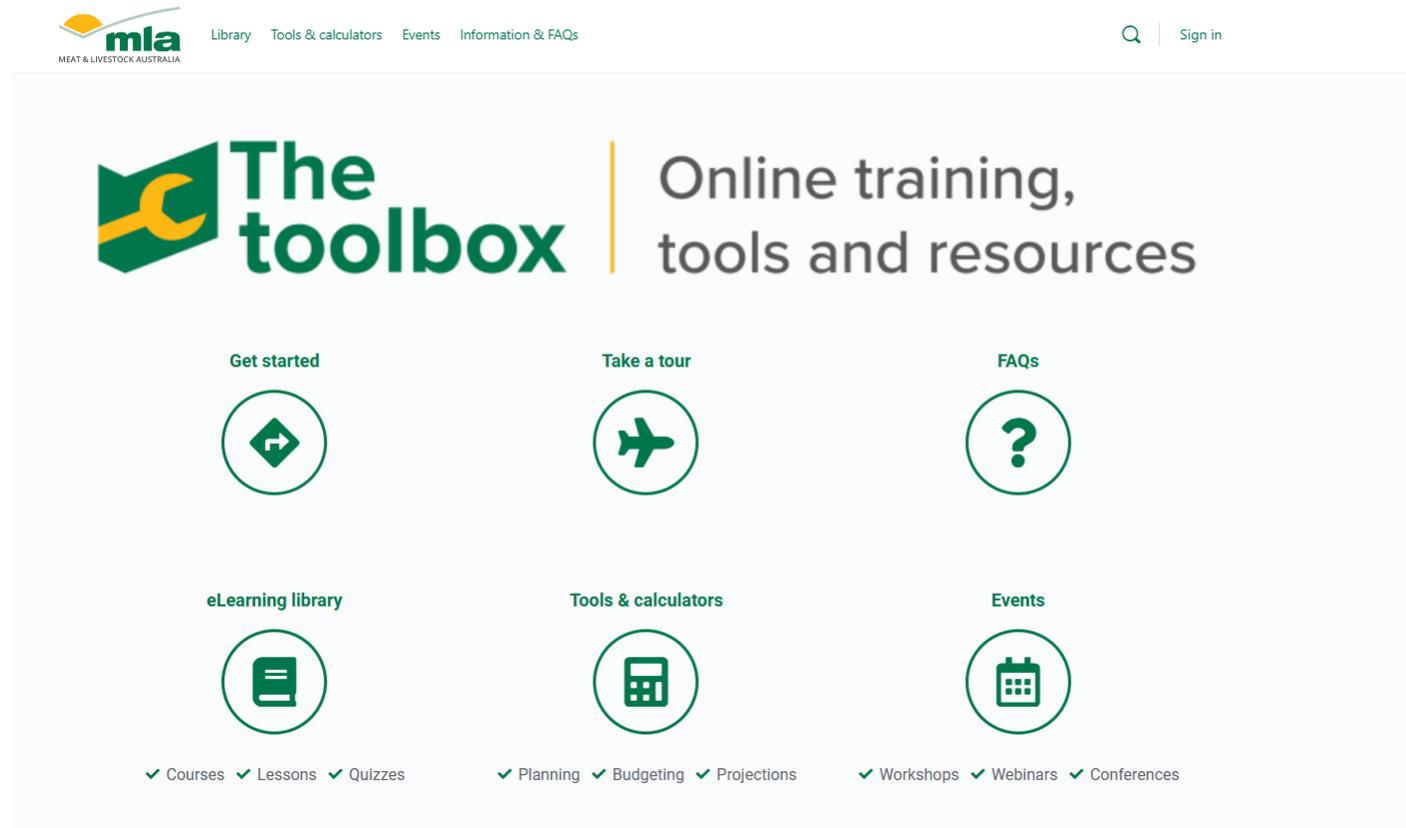
# Nutrition

- All calves need colostrum to get off to a great start
- All calves need access to fresh clean water from birth
- High volume milk and milk solid feeding can lead to significant increases in average daily gain and set up calves to be more productive over lifetime
- Birth to 12 week is an ideal time to manipulate average daily gain which will affect lifetime productivity.



# Finally complete the Growing Beef from Dairy Modules.....

Once they are released!



The screenshot shows the 'The toolbox' website interface. At the top left is the MLA logo (MEAT & LIVESTOCK AUSTRALIA) and navigation links for 'Library', 'Tools & calculators', 'Events', and 'Information & FAQs'. On the top right are search and 'Sign in' options. The main heading is 'The toolbox' with a wrench icon, followed by the text 'Online training, tools and resources'. Below this are six categories, each with an icon and a list of sub-items:

- Get started** (Home icon):
  - ✓ Courses
  - ✓ Lessons
  - ✓ Quizzes
- Take a tour** (Airplane icon):
- FAQs** (Question mark icon):
- eLearning library** (Book icon):
- Tools & calculators** (Calculator icon):
  - ✓ Planning
  - ✓ Budgeting
  - ✓ Projections
- Events** (Calendar icon):
  - ✓ Workshops
  - ✓ Webinars
  - ✓ Conferences

# Get involved

If you would like to contribute or stay up to date with the Growing Beef from Dairy Project, scan the QR code & fill in your details

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callen@agstarprojects.com.au

