

# Are you milking canola meal for all it's worth?

## About Cargill

Cargill is a 160 year old family owned company providing food, ingredients, agricultural solutions and industrial products to nourish the world in a safe, responsible and sustainable way. We operate in 70 countries around the world including New Zealand.

## About Canola and Canola Meal

Australian farmers produce on average between 6-9 million metric tonnes of canola seed each year, producing one of the world's healthiest vegetable oils – and with it – a great feed ingredient in canola meal.

Cargill is one of the major buyers of canola seed in Australia for both exporting the seed and for crushing at our three crushing facilities, Newcastle, Footscray and Narrabri, making Cargill the largest crusher of oilseed in Australia. Most canola purchased is accredited under the European ISCC sustainability certification scheme, which covers traceability and greenhouse gas criteria. Our plants are also ISCC-accredited, and ISCC-certified canola meal can be made available on request.

Canola seed is crushed to produce high-quality canola oil, which is commonly used in food service and food

ingredient applications. The remaining material, canola meal, is used as a high-quality stock feed that is most commonly incorporated into dairy rations globally.

Canola meal exported to New Zealand is typically processed at Cargill's crush facility at Newcastle in New South Wales and shipped via the Port of Newcastle. The Newcastle facility is largely powered by renewable energy sourced from an onsite solar array.

Canola meal is distributed in New Zealand by DAHUTI International and is readily available from all major stock feed suppliers.



## Nutritional information about Canola Meal

Canola meal is an important ingredient of feed rations for dairy cows around the world. Canola meal is currently available in New Zealand and presents an opportunity for the NZ dairy industry to leverage the benefits of canola meal.

### Strong rumen bypass (RUP) for more metabolisable protein

- A significant proportion of canola meal protein escapes rumen degradation and is digested in the small intestine as metabolisable protein, directly supporting milk synthesis.
- This allows:
  - Better conversion of feed protein into milk
  - Lower nitrogen losses and reduced milk urea nitrogen (MUN)



### Excellent amino acid balance (milk-aligned) and high available methionine

- Canola meal has one of the best amino acid profiles of any vegetable protein, particularly for:
  - High available methionine, an amino acid that is often the first-limiting in dairy diets
  - Good lysine supply relative to most other oilseed meals





- Its amino acid profile is closer to milk protein requirements than most other vegetable protein sources, improving protein efficiency and milk response.
- While NZ pasture is typically high in crude protein, it is often imbalanced in key amino acids, particularly methionine, which can limit milk solids production. Canola meal provides a more milk-aligned amino acid profile, helping convert existing pasture protein into milk more efficiently rather than simply adding more protein.

### Supports higher and more persistent milk production & Increased milk solids efficiency

- Across multiple studies, cows fed canola meal consistently show:
  - Higher milk yield versus other vegetable proteins
  - Improved early-lactation performance
  - Better post-peak persistency
- These responses occur even when diets are formulated to the same crude protein level, highlighting a biological advantage, not just a formulation one.
- Research consistently shows canola meal improves protein utilisation, leading to:
  - Better conversion of feed protein into milk protein
  - Lower milk urea nitrogen (MUN)
  - Reduced nitrogen losses per kg of milk solids.
  - This aligns directly with NZ's regulatory and processor focus on nitrogen efficiency and environmental performance.

### Increased Dry Matter intake with canola meal

- When canola meal is included in a total mixed ration, nutritionists and farmers often observe higher feed intake, with cows showing a stronger appetite and eating more. This is supported by multiple studies showing that canola meal performs well in the rumen, helping to increase dry matter intake and support higher milk production.
- Canola meal contributes to a favourable rumen environment through its highly digestible fibre and well balanced protein, supporting microbial activity and helping drive appetite, milk yield, and efficient use of dietary protein in lactating cows.

### High-quality, efficient protein supply

- Canola meal is a high-protein feed ingredient (≈36–40% crude protein) that delivers protein efficiently to the cow rather than simply increasing crude protein intake.
- Canola meal supplies a meaningful level of rumen undegradable protein (RUP), supporting:
  - Early lactation cows under energy and protein stress
  - Periods of low pasture quality or drought supplementation
  - Improved milk solids response from relatively small inclusions.

### Provides usable energy and digestible fibre

- While traditionally viewed as a “protein only” ingredient, modern research shows canola meal also contributes:
  - Meaningful usable energy
  - Digestible fibre that complements high-forage diets
- This helps maintain body condition and milk components when protein supply is optimised.

### Valuable mineral contribution

- Canola meal is a naturally rich source of phosphorus, often reducing the need for supplemental inorganic P in dairy rations.

### Improved nitrogen efficiency and sustainability outcomes

- Because cows use canola meal protein more efficiently:
  - Less excess nitrogen is excreted
  - Lower MUN and reduced nitrogen waste are observed
  - Some studies also associate canola meal with lower enteric methane intensity per litre of milk

### Supports sustainability and compliance outcomes

- Because canola meal improves **metabolisable protein supply without increasing total crude protein**, it can help:
  - Lower nitrogen excretion intensity
  - Support processor and regulatory sustainability targets
  - Improve feed efficiency metrics.

**For more information about canola meal contact:**

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