

Reasons to feed molasses: Building the best beef diets

The key objectives when feeding beef cattle

- Growing beef cattle have large appetites relative to their liveweight so require high daily feed intakes in order to sustain optimal growth rates and reduce days to finish
- Energy dense feeds are essential in beef diets in order to maintain growth rates so including sugars is important for balance as too much reliance on starch for energy could lead to fat deposition in meat and acidosis in young cattle
- Diets require an efficient feed conversion rate so good rumen function is really important to help avoid potential digestive upsets from the energy dense daily intake of nutrients

Why molasses is a great feed for a balanced beef diet

- Molasses increases the dry matter intakes of any forage based diet so is ideal for cattle diets requiring high levels of daily nutrients in either the growing or finishing stages
- Molasses adds energy through its sugars to rations which as rapidly fermentable carbohydrates will ferment and breakdown quickly in the rumen helping with the digestion and degradability of high starch and fibrous feeds for optimal rumen function and feed conversion efficiency
- Molasses improves the palatability and presentation of forage in the feed passage supporting stronger intakes, less waste/ration sorting and the potential risk of acidosis

The reasons why adding sugars through molasses works well in beef cattle diets



The primary nutritional component of molasses is sugars, sugars are a rapidly fermentable carbohydrate and will fully break down in the rumen less than 2-3 hours after feeding and be fully digested within 4 hours.

The sugars stimulate microbial activity when they break down which helps to increase the overall digestibility in the rumen of more fibrous feed materials in a typical beef cattle diet.



Molasses stimulates the microbial activity in a cow's rumen by increasing Volatile Fatty acid production which has been shown to improve nutrient absorption in the digestive tract and reduce the risk of acidosis.



As Molasses is a liquid, beef cattle can physically consume approx. 0.3kg more Dry Matter intake per day over a forage based diet containing only dry feed materials which is ideal for housed feeding during the finishing stage.



The sugars in molasses add a natural sweetness to forage based rations that stimulates the taste receptors in beef cattle's tongues to want to voluntarily eat more of the ration.



A growing bulls ration requires a minimum of 4% sugars on a DM basis to best optimise rumen function. A farm in Cheshire added 1kg of Caneflow molasses to their finishing bull ration targeting 1.5kg liveweight gain per day and raised the diet sugar content in the diet from 2.3% to 4.4% on a DM basis



A study carried out in Italy to evaluate the effect of partially substituting starch with sugar from a molasses liquid feed to evaluate the effects of growth in fattening beef cattle (Charolais). They concluded from the study that using molasses to replace part of the starch in the diet increased Dry matter intakes by 0.45kg/day which improved growth performance with positive effects on health and rumen activity observed. (Large Animal Review volume 30 no.2 2024)