LactoBoost

LactoBoost is a palatable high energy, lactose rich, free- flowing liquid proven by research at SRUC to effectively replace cereal and maintain milk and milk constituent yield. LactoBoost provides a rapidly available source of rumen energy from milk sugar, aids fibre digestion and improves efficiency of protein utilisation. LactoBoost is a cost-effective source of ready to feed sugar.

Typical Analysis (on a dry matter basis)

Dry matter (%)	Energy (MJ ME/kg DM)	Crude protein (%)	Oil (%)	NDF (%)	Lactose (%)
23.0	13.5	3.0	0.7	0.0	85

What are you trying to achieve?

Need	Feature	Benefit
Drive intake	Highly palatable with low concentrate substitution rate.	Stimulates total feed intake, including home produced feeds, thus lowering feed costs.
Increase milk yield	A ready source of fermentable energy as lactose sugar	Improves fibre digestion by stimulating fibre-digesting bacteria with an instant energy source, resulting in more energy for milk production and a trend towards higher milk fat %.
Improved efficiency of feed protein use	Quick release lactose sugars improve capture of rumen degradable feed protein	Reduced milk urea output as more feed protein is converted to microbial protein. Lower nitrogen emissions to the environment.
Reduce ration sorting and minimise dust	A low dry matter liquid.	Livestock consume a more balanced ration, reducing the risk of acidosis and improving feed efficiency. Less dust reduces feed waste, improves the working environment and feed intakes.
No processing, ready to feed	High lactose liquid	Easy to store and convey, all year round availability

The predicted responses (benefits) assume that the specified nutrient, physical or structural dietary components are limiting livestock performance in the current ration.

Complementary Concentrate Feeds

- **High digestible fibre feeds** e.g. sugar beet feed products and soya hulls
- **High starch feeds** e.g. cereals
- **Protein feeds** e.g. distillers and rape seed meal
- **Rumen bypass proteins** e.g. SoyPass, Novapro

Recommended daily feed rates (per head basis)

LactoBoost can be fed as part of a TMR.

Milking Cows	Up to 9 (typically 6)kg
Dry Cows*	Up to 2.5 kg (Not recommended 3 weeks precalving)
Replacement Heifers	Up to 2.5 kg and up to 10% of the DMI
Growing Cattle	Up to 2.5 kg and up to 15% of the DMI
Finishing Cattle	Up to 8 kg and up to 20% of the DMI
Suckler Cows	Up to 4 (typically 2)kg
Ewes and Rams	Up to 0.5 (typically 0.25)kg
Hoggets and Lambs	Up to 0.5 kg and up to 10% of the DMI

*LactoBoost has a high sodium content so check dry cow ration dietary cation anion balance (DCAB).
DMI = Dry Matter Intake

Availability, handling and storage

LactoBoost is delivered in 29 tonne liquid tankers and is available UK wide, all year around. Tanks should be built to hold and dispatch bulk liquids. A 4-inch diameter pipe work is adequate to handle this liquid.

Tanks should be well maintained and cleaned out regularly to prevent bacterial contamination and fermentation of Lactoboost. Mixing of whey permeate with other liquids (molasses etc.) may cause secondary fermentation, potentially reducing the nutritive value and creating an odour/taint. Hence prior to the first delivery it is highly recommended that the container / tank be cleaned thoroughly.

The high concentration of Lactose in LactoBoost may start to settle out after 3 days of delivery depending upon ambient temperature. The product should be agitated or circulated at least once a week, to ensure consistency as a layer of lactose sediment may build up in the tank which can solidify, for this reason we also recommend a load is fed within **three** weeks of delivery.

Additional information

Method of production

LactoBoost is a co-product from the processing of milk for cheese and whey protein product manufacture. The whey permeate that remains after cheese manufacture is ultra-filtrated to remove the majority of the whey protein and some minerals. This leaves LactoBoost a very high lactose sugar liquid.

Quality Assurance

Whey permeate is a FEMAS assured (or a recognised equivalent) product. Whey permeate is listed under number 8.21.1 in the EU Catalogue of Feed Materials.

Legal Disclaimer

Suggested feeding rates are produced as a guide only and many other factors may have an overriding effect on animal response; no performance guarantee can be given. Rations should be carefully balanced for energy and protein, contain sufficient forage to maintain rumen function and be fortified with an appropriate vitamin and mineral supplement. Animals must have constant access to clean water.

LactoBoost
Detailed Typical Analysis (fresh basis other than where stated)

Dry matter	%	23.0	Calcium	g/kg	1.4
Oil A	%	0.16	Magnesium	g/kg	0.32
Oil B	%	0.16	Phosphorus	g/kg	1.60
Crude protein	%	0.69	Potassium	g/kg	5.00
Crude protein: DM	%	3.00	Sodium	g/kg	1.40
Fibre	%	0.00	Copper	mg/kg	1.00
Ash	%	1.89	Manganese	mg/kg	0.69
ME* – *in vivo*	MJ/kg DM	13.5	Selenium	mg/kg	0.01
NDF	%	Trace	Zinc	mg/kg	2.00
Starch	%	Trace	Salt	%	0.53
Sugar as lactose	%	19.5			

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