UltraLac

IEC Animal Health

Completely Natural Animal Feed Additive for Improving Milk Production Efficiency

- Get more Energy Corrected Milk (ECM) per pound of feed per head of cattle
- Improved milk production (peak milk and/or milk persistency) during entire lactation period
- Formulated using ingredients approved under the Community Register of Feed Additives by the European Union
- Costs just pennies per day per

Profit from maximizing Feed Conversion to Milk

New Paradigm: Old model: Maximize feed ***intake*** in order to get higher milk output. New model: Maximize production efficiency to optimize ***output***. **UltraLac** promotes greater conversion of Dry Matter intake and promotes improvement in animal health, resulting in greater ECM output.

Unique Formulation: Based on knowledge of advanced microbiology, phytochemistry and ruminal physiology, **UltraLac** is a balanced combination of all-natural probiotics, minerals, a complementary blend of naturally derived amino acids, plant extracts and phytochemicals. All food-grade ingredients are co-cultured using a proprietary fermentation process.

Product Use: **UltraLac** is conveniently available in solid and liquid formulations and is mixed with feed or water. It is administered once or twice a day depending on feed regimen at local farms. Compatible with both pasture-fed or concentrated, protein and grain-enriched diets.

Continued Economic Sustainability of a dairy farm depends on maximizing the milk production potential of animals while at the same time ensuring the fundamental health of animals. Aggregate cost, quality and utilization of feed by animals, generate the greatest impact on the profitability of dairy farms. Fast-acting **UltraLac** helps farmers achieve rapid improvement in milk production that is also sustainable over time.

Benefits and Mode of Action

Alteration of Rumen Microflora: The judiciously chosen microbes in **UltraLac** are known, in scientific literature, to establish themselves in a Cow's rumen. Through a complementary mechanism the microbes help control pH, prevent ketosis and acidosis. **UltraLac** is believed to enhance fiber digestion. Most importantly, **UltraLac** is believed to maintain a healthy population of beneficial rumen microflora which shift volatile fatty acid (VFA) production towards production of propionate (glucose precursor) which is known to improve growth efficiency in growing cattle and increase milk production in lactating cows. **UltraLac** also provides a rich source of saponins, a class of natural compounds that have been shown in both in vitro and in vivo studies to have anti-protozoal activity. Elimination or inhibition of protozoa is implicated in improving the nitrogen economy in rumen. Sulfur-containing compounds in one of the plant extracts used in **UltraLac** is shown in a batch culture to reduce methane production, likely by direct inhibition of rumen methanogenic archaea. Methane production represents loss of digestible energy and thus its prevention can increase available energy for the animal and also help reduce greenhouse gases.

Facilitating Increase in Milk Solids: Improved microbial activity and the resultant enzyme production in rumen leads to better nitrogen utilization for microbial protein synthesis. Plant bioactives used in **UltraLac** are shown in scientific literature to reduce breakdown of ruminal protein and improve N utilization through binding with excess ammonia in rumen. **UltraLac** also contains substances naturally rich in eugenol that is shown *in vitro* studies to increase the production of butyrate that is responsible for protein synthesis. Both lysine and methionine aminoacids-rich ingredients used in **UltraLac,** are likely to help enhance levels of the bypass protein that helps increase the overall protein content of milk. Additionally, the oil seed cakes used in formulating **UltraLac** contain unsaturated vegetable fats which are thought to be rumen-bypass fats that increase total fat content in milk.

Minerals Balance: Essential minerals in **UltraLac** such as Calcium are known to make up for mineral deficiencies in corn-based diets during the critical stage of milk production. Other minerals such as sodium and manganese are believed to help with proper function of an animal's nervous and muscular systems, water retention and ability to cope with stresses such as heat. From field experience it should be noted that **UltrLac** also promotes a healthy appetite which is fundamentally necessary to provide more energy to animals.

Improvement in Animal Health: Yeast and carbohydrate sources in **UltraLac** contain mannan-oligosaccharides and beta-glucans which have been thought to improve the health of an animal's gastrointestinal track and potentially bind pathogenic bacterial organisms. Two of the plant extracts in **UltraLac** have high concentrations of antioxidents, antifungal and antiviral agents which are believed to positively impact overall animal health. Plant extracts in **UltraLac** are also known to reduce or control parasites that otherwise negatively impact animal health.

Use UltraLac and Your Cow Will Thank You!

Dosages of IEC Products:

FEEDING:	Along with water OR feed		
PARTICULARS	DOSAGE, ml/ Animal /Day		
	Up to 100 kgs	Up to 200 kgs	Over 200 kgs
INNO-GRO+	3	5	10
UltraLac	3	5	10
BIO-SECURITY	Foliar application on skin, every third day		
PARTICULARS	DOSAGE, ml/100 litres		
RENERZYME	500 - 1000		