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biologics**<sup>®</sup>  
solutions by nature

# LACTAMUUN<sup>®</sup> FACTS

- MOS for effective pathogen binding in the GI tract to reduce gut challenges.
- Beta glucan to improve immune response.
- Sarsaponin to disrupt rumen protozoa and improve nutrient digestibility.
- Available in formulations approved for organic livestock production.

### ► Product Description:

Lactamuun is an all-natural, highly concentrated blend of yeast components and yucca extract. This unique blend of complex carbohydrates and glycosides helps improve rumen efficiency and nutrient digestibility while increasing nitrogen retention, reducing methane production and gut pathogens while supporting immune function.

Lactamuun blends active compounds from all-natural sources into a highly concentrated form.

### ► Modes of Action:

**MOS** – The MOS components of Lactamuun provide effective pathogen binding in the GI tract. Tested against dozens of *E. coli* and *Salmonella* strains, Lactamuun is proven to bind 95% to 100% of the different strains evaluated (Figure 1). In the animal, this prevents the pathogens from attaching to the gut lining and establishing an infection.

**Beta Glucan** – Algal beta glucan is a unique and highly effective at modulating immunity to improve responsiveness in both the innate and adaptive branches of the immune system. This leads to rapid elimination of health challenges and the longer-term benefits of improved response to vaccination.

**Sarsaponin** – Derived from the Yucca cactus, sarsaponin disrupts protozoa cell membranes, killing them. Rumen protozoa consume millions of rumen bacteria, reducing the microbial protein available to the cow. Rumen methanogens also use protozoa to generate methane, robbing the cow of volatile fatty acids and increasing the overall methane output. Including sarsaponin in the diet decreases rumen protozoa while improving nitrogen retention (Figure 2).

**Yeast Cell** – Lactamuun contains a highly concentrated dose of yeast cells. With no carrier or media, the yeast provides a concentrated source of nucleotides, peptides and digestible protein for more efficient rumen function.

Figure 1. Binding Effectiveness Against Pathogens

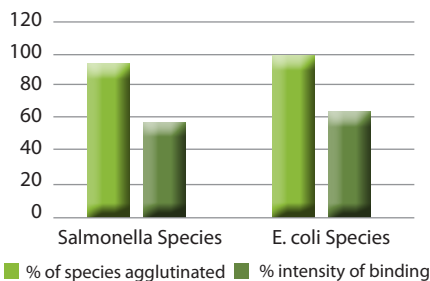
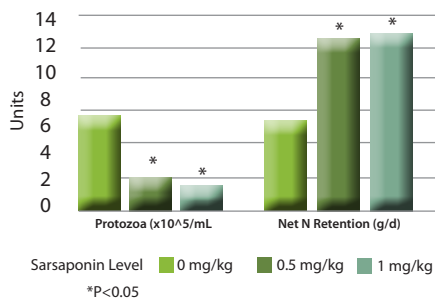


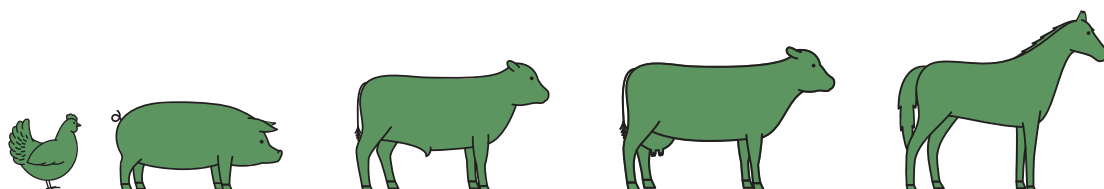
Figure 2. Effects of Sarsaponin in the Rumen



See how Lactamuun can impact the overall health and productivity of your herd, for less than 6 cents per cow per day.

Visit [naturalbiologics.com](http://naturalbiologics.com) today.

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# LACTAMUUN®



## ► Product Description:

Lactamuun® is an all-natural, highly concentrated product derived from *Saccharomyces cerevisiae* and *Yucca schidigera* extract. The biologically active compounds from these natural sources have well-established benefits for animal health and productivity.

► **Ingredient Composition:** Dried Yeast, Yeast Extract, plant protein product and *Yucca schidigera* extract, mineral oil.

► **Purpose:** Lactamuun is to be used as a supplement to complete diets for all classes of livestock, poultry, swine and companion animals.

## ► Feeding Directions:

To be included in complete diets according to the general guidelines at right, or as recommended by a qualified nutritionist.

**Typical Analysis:** request from manufacturer

**Density:** 31 - 34 lb/cu Ft

**Appearance:** Light brown, free-flowing powder

**Packaging:** 55.1 lb (25 kg) bags or 2000 lb totes

**Shelf Life:** Two years from date of manufacture when stored in a cool, dry place in the original package.

**Precautions:** Use only as directed. Avoid inhalation of dust.

Guaranteed Analysis:		
Crude protein	not less than	32.0%
Crude fat	not less than	0.5%
Crude fiber	not more than	2.0%
Moisture	not more than	10.0%
Ash	not more than	6.0%

## ► Dairy Cattle

Calf Starter Grain	2.5 kg/MT (5.0 lbs/ton)*
Calves	1-2 g/hd/d
Growing Heifers	3 g/hd/d
Pregnant Heifers	4 g/hd/d
Dry/Prefresh Cows	8 g/hd/d
Lactating Cows	5 g/hd/d

## ► Beef Cattle

Calves	1-2 g/hd/d
Receiving Calves	2 g/hd/d
Stocker/ Backgrounder	2 g/hd/d
Growers/Finishers	2-3 g/hd/d
Finishers heat/cold stress	4 g/hd/d
Brood Cows	3-4 g/hd/d

## ► Swine

Starters (to 25 pounds)	0.25 kg/MT (0.5 lbs/ton)*
Growers/Finishers	0.5 kg/MT (1 lbs/ton)*
Pregnant Sows (2 lbs/ton)*	1 kg/MT
Lactating Sows	1 kg/MT (2 lbs/ton)*

## Companion Animals

### ► Dogs

<10 lbs. body weight	0.25 g/hd/ 0.5 g/hd/d
10-50 lbs.	0.5 g/hd/d
50+ lbs.	0.75 g/hd/d
Senior	3 kg/MT
All Stages	3 kg/MT (6.0 lbs/ton)*

### ► Cats

House	0.25 g/hd/d
Farm	0.5 g/hd/d
All Stages	3 kg/MT (6.0 lbs/ton)*

## ► Chickens

Broiler Starter	0.1 kg/MT (0.2 lbs/ton)*
Grower/Finisher	0.25 kg/MT (0.5 lbs/ton)*
Layer Starter	0.1 kg/MT (0.2 lbs/ton)*
Layer Grower	0.25 kg/MT (0.5 lbs/ton)*
Complete Lay Cycle	0.25 kg/MT (0.5 lbs/ton)*
Breeder	0.25 kg/MT (0.5 lbs/ton)*

## ► Turkey

Starter	0.2 kg/MT (0.4 lbs/ton)*
Grower/Finisher	0.2 kg/MT (0.4 lbs/ton)*

## ► Equine

Foals	2 g/hd/d
Pregnant/Working/Show	4 g/hd/d
Stallion	4 g/hd/d
Draft	8 g/hd/d
Senior	4-6 g/hd/d
All Phases	4.0 kg/MT (8 lbs/ton)*

## ► Sheep/Goats

Kids	1 g/hd/d
Bummers (until weaned)	3 g/hd/d
Grower/Finisher	1.5 g/hd/d
Lactating	1.5-2 g/hd/d

\* Amount to be included in complete feed

