Increase your Cattle Health

Use “vriddhi”

A Cattle feed **Probiotic**

What is "vriddhi"

'vriddhi' is a cattle feed probiotic having a microbial consortium (classified as GRAS) which are naturally occurring and fully adapted.

It is NATURAL , ENVIRONMENTAL ISOLATED and ORGANIC

The stomach of the dairy cow

The rumen and reticulum is the largest compartment of the cow's stomach. Fiber, starch, sugar, and proteins are fermented by the microbes to form volatile fatty acids and microbial protein.

Rumen absorbs volatile fatty acids. The stomach is where the cow's own enzymes and acids break down ingested feed. Rumination is the process by which the cow regurgitates previously consumed feed and masticates it a second time.

The stomach is one of the most dense microbial habitats in the world. Microscopic organisms called rumen microbes break down (or digest) ingested feed by a fermentation process. The rumen is the major site of fermentation in the cow.

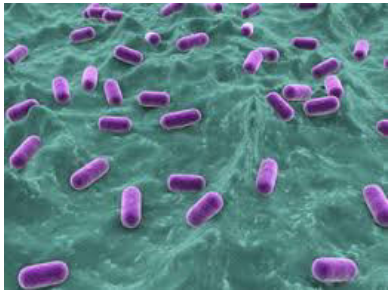
There are one to ten billion bacteria per ml, One million protozoa per ml, and a variable amount of fungi. The cow does not secrete any of her own acids or digestive enzymes in the rumen. Rather, all rumen digestion is done by the microbes.

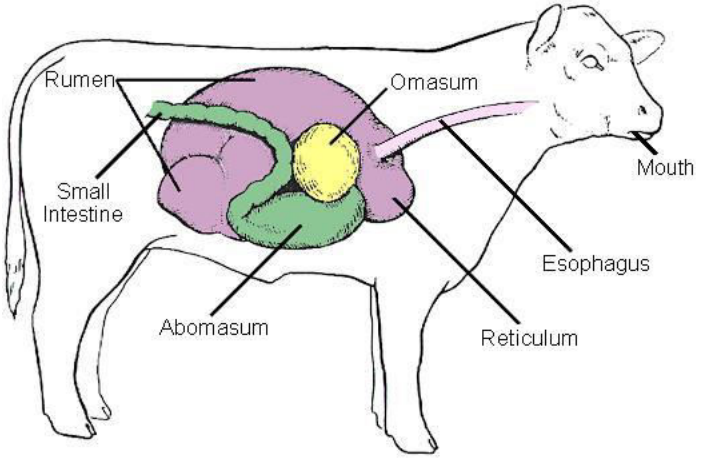
Rumen pH ranges between 5.7 and 7.3.

The high side of this pH range (> 7) is seen on poor quality forage supplemented with urea.

In high-producing dairy cows, **acidosis** (rumen pH<6.0) is a common problem. This occurs when the cow eats too much rapidly digestible starch or sugar that creates acid and overwhelms the rumen's system. Mostly due to lack of long fibers.

Probiotics have a great role to play in maintaining intestinal health and well being. It has been observed that probitics improve anaerobiosis, stabilise pH while ensuring supply of nutrients to microbes. It benefits digestion, animal performance and the immune system.





LACTO BACILLUS AS PROBIOTIC

The major components of Probiotics for ruminants are yeast and bacteria. Lactobacillus is the most important component of such probiotics, followed by Bifidobacteria and are mostly Lactic Acid producing bacteria

Cattle health, starts from birth and weaning period. It is improved with addition of probiotics, as the foreign atmosphere gives rise to stress and causes diarrhea, the population of lactobacilli in the intestinal tract being low. Supplementing with lactobacillus decreases chances of diarrhea.

Feeding vriddhi from birth ensures the establishment of gut microflora with a positive balance of beneficial bacteria.

Inadequate intake of long fiber which promotes rumination can also result in acidosis; counteract the acid produced by grain fermentation. The rumen microbes, which primarily digest fiber, are acid intolerant. They do not grow well in acid and they don't digest feed, especially forages, well under acid conditions. Probiotics are both bile and acid tolerant.

Antibiotics are particularly harmful to gut microflora, leaving animals susceptible to re-infection so vriddhi should be used as a matter of course following administration of antibiotics.

The lactic acid produced by the probiotic bacteria is harmful to the pathogens in the intestines, and so maintain intestinal health.

In adult ruminants, probiotics are recommended when there is microbial imbalance.

Benefits of "vriddhi"

- 'vriddhi' creates an intestinal environmental that can improve the cattle immune system
- It helps in maintaining the desired lactic acid levels in the guts of the dairy cows
- It helps to digest the foods by breaking them down into their individual components parts such as fats, amino acids, vitamins, carbohydrates and minerals for effective absorption into the body.
- It also enhances production of milk and fat

vriddhi वृद्धि

- Effective over a wide range of climatic condition
- Better assimilation of nutrients and microelements
- Improves gut microflora
- Helps in tissue repair and wound healing
- Prevents bacterial infections
- Reduces feed cost, medicine cost, management cost
- Optimizes gut health and gut mucosal immunity
- Prevention of toxic amines and ammonia production
- Helps prevent Goitre, Psoriasis, cataract, Granuloma in farm animals
- Detoxifies aflatoxins and mycotoxins

The cattle body needs throughout its life, a steady and appropriate supply of minerals **through the diet**. The minerals form an integral part of a large number of vitamins, proteins, transport chains and enzymes. A good number of minerals are essential to that effect. Irrespective of the quantity, their significance cannot be weighed down.

Although the minerals are required in very trace amounts, their deficiency or depletion from the cattle body may give rise to a lot of diseased conditions.

Role of probiotics in facilitating mineral absorption:

The indigestible carbohydrates cause enhanced mineral retention. Carbohydrate compounds are able to bind the minerals. The **probiotics** act on the non digestible carbohydrates which gives rise to fatty acids. Which can affect an increased absorption of minerals.

Nitrate Fixation

- Fodder absorbs Nitrates from the Urea in the ground and / or from the atmosphere
- This causes, what is called Nitrate Poisoning.
- The Nitrosomanas and Nitrobacter (microbes) in vriddhi converts the Nitrates to Ammonia (discharged in Urine) and then to Nitrogen.

Overall Benefits of Probiotic vriddhi

- Helps in absorption of natural minerals and vitamins from fodder.
- Less dependant on **chemical formulations** and supplements for vitamins and minerals.
- Maintains Intestinal health with proper intake of bacteria.
- Maintains a natural pH balance in the Gut.

- Overcomes the after effects of antibiotics
- Also supports enhancement of milk and fat.
- Reduces chances of Nitrate Poisoning
- vriddhi is a consortium of naturally occurring bacteria and *is not a chemical*

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