

# Why Primalac?

## What makes Primalac the Premier Direct-Fed Microbial Product for Livestock, Poultry and Aquatic Feeds?

### ... The Right Process

Only Primalac Direct Fed Microbials (DFM) are processed using the exclusive Thermo-Positive System. From strain selection through final screening Primalac DFM products are designed to be the most effective microbial feed additives available — even after the heat of pelleting. All of the organisms in Primalac are grown together to produce a complete viable system. This method involves a modified process of inoculating a special liquid media, developed by Forage Research, Inc., which is suitable for the growth and cultivation. Once these organisms have gone through a proper growth phase, determined by quantitative analysis, the system is ready to be extended to a dry product. Extension of this liquid system involves mixing it with a dry material, well mixed, the moist product is dried at specific temperatures for a specific period of time adhering the microorganisms to the dry material. The resulting product then goes through the final Thermo-Positive process of coating, completing the stability procedure. Primalac is then screened to make sure it is free of pathogens.

### ... and the Right Advantage

Years of field, lab and university test have demonstrated the efficacy of the exclusive Primalac combination of the right organisms and the right process. Today, the Primalac Advantages are clear...only Primalac provides:

1. A stabilized gram count (live organisms per gram of dry material)
2. Viable microorganisms (ability to implant)
3. Ability of these delicate microorganisms to withstand rigorous test against heat.  
(Primalac 454 can be pelleted with less than 10% loss of viability)
4. Ability to maintain viable organism counts in the field under all types of storage conditions, and when mixed in all types of feed and mineral supplements. (Primalac has a minimum shelf life of 24 months with no loss of viability at room temperature.)

**When you buy Primalac, you are buying the best Direct Fed Microbial product on the market today!**

# Direct-Fed Microbial

## There is a Difference

Direct-Fed Microbial, a term applied to beneficial bacteria, is one of the hottest and most often misunderstood topics among Veterinarians, Feed Companies, and Livestock and Poultry producers today.

In recent years, many Lactobacillus/Streptococcus type products have been introduced to the marketplace, and many more will arise in the near future. Many of these products will come and go, and some manufacturers will continue to market what their limited knowledge and culturing ability allow them. In most cases, all Direct-Fed Microbial should produce some benefit: however, the consistency of results will vary greatly from product to product.

**Direct-Fed Microbial DO NOT FUNCTION LIKE ANTIBIOTICS.** They do not work quickly, they bring about results over an extended period of time. Direct-Fed Microbial are not overnight miracle products, or a 30-day cure-all. One should consider which of these products are really "worth the money."

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Today a great deal of confusion exists as to the thinking that all Direct-Fed Microbial products are alike. The only common criteria is that each has incorporated some type of Lactobacillus/Streptococcus bacteria into their product.

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The Direct-Fed Microbial that produces sporadic inconsistent results is usually due to the manufacturer's limited knowledge of highly specialized culturing technology, necessary to produce a superior, highly viable, and stable Direct-Fed Microbial . Also the ability and experience required to adapt such a Direct-Fed Microbial to various feeding/health programs, producing consistent results is limited.

A quick review of different products will clearly show that all Lactobacillus/Streptococcus products are not all alike.

The major Direct-Fed Microbial products available today can be categorized into about four types. Three of these types can only produce inconsistent and sporadic benefits. They include:

1. Non-Viable Direct-Fed Microbial ... These are DEAD.
2. Freeze-dried Direct-Fed Microbial... These will die rapidly if not stored in a very cool location. **DO NOT PELLET.**
3. Fermentation Products ... These are produced through fermentation. (UGF) These types of products are:

- either dead
- cannot be counted
- contain the wrong sub-species of Lactobacillus/Streptococcus
- have low bacteria count
- have 100 days or less shelf life out of refrigeration

These products should not be confused with the fourth type of Direct-Fed Microbial.

4. Viable primary Lactobacillus/Streptococcus cultures. This type of Direct-Fed Microbial is live, should have guaranteed shelf life, should guarantee number of organisms, should have protocol for counting, should be very stable and efficacious.

**PRIMALAC** falls into your fourth type of Direct-Fed Microbial. A highly viable product consisting of select sub-species of primary Lactobacillus/Streptococcus bacteria. Star-Labs highly specialized culturing technology and rigid quality control enables us to market a superior Direct-Fed Microbial that contains a maximum number of viable bacteria.

### **PRIMALAC:**

- Has a 2 year storage life
- Contains viable organisms which can be counted, (with our protocol)
- Can be pelleted ("Primalac 454 Feed Grade")
- Is Efficacious