FOR IMMEDIATE RELEASE

Nutraferma® Launches LactoPlan™; a *Lactobacillus* that is both heat-stable, shelf-stable, and can be incorporated into pelleted feed.

Innovative new strain of *Lactobacillus plantarum* will revolutionize probiotics in animal feed.

N. SIOUX CITY, SD – January 21, 2014 – Nutraferma, a leading innovator in biotech solutions for the feed ingredient industry has introduced LactoPlan™, a ground-breaking heat-stable and shelf-stable *Lactobacillus plantarum* that can be pelleted into feed and maintain high cell counts after extended periods of storage. "A *Lactobacillus* that can be pelleted into feed changes everything," according to Nutraferma nutritionist Dr. Jason Sewell Ph. D., "this is a real breakthrough." *Lactobacillus* species are a common lactic-acid bacterium that work antagonistically toward pathogens while supporting nutrient utilization. Supplementation in animal diets has not been preferred since the instability of this bacterium posed a problem to its use in pelleted feed. LactoPlan is unique because it is able to withstand pelleting temperatures of 95-degree C and maintain guaranteed cell counts for up to one year of storage. "Before this breakthrough, the feed industry was limited to spore forming bacterium such as *Bacillus*," said Eric Lohry, President of Nutraferma. "With LactoPlan, we are able to utilize a *Lactobacillus* that can be included in pelleted feed," said Lohry.

As a lactic-acid producing bacteria, LactoPlan works antagonistically towards pathogens and creates an environment that supports a healthy balance of microflora. Lactic-acid producing bacteria have been shown to colonize in the mucous membranes within the gut. This restricts the ability of some pathogens to bond with that membrane. Live (viable) lactic-acid producing bacteria also provide the benefits of lowered pH from increased lactic-acid content in both the feed product and the animal's gut. Lowered pH helps to create an environment that promotes a healthy balance of microflora. "The lactic-acid producing bacteria are considered superior probiotics that can now be used in pelleted feed. This is truly a groundbreaking advancement," said Sewell.

Recent research at Virginia Tech University indicates that when broilers challenged with Avian *E. Coli* were fed LactoPlan they were able to reduce mortalities when compared to a commercial antibiotic. The use of LactoPlan at an inclusion rate of just 0.1% of the diet reduced mortality by 71% over challenged birds and 40% over birds on an antibiotic treatment. Further studies have been conducted on swine with positive

results. "Numerous research studies have shown that the supplementation of a *Lactobacillus* DFM has been proven to have a beneficial impact on animal health" according to Sewell.

The microbes in LactoPlan are heat-stable, shelf-stable, and have the ability to be pelleted into feed without the loss of viability. This innovative capability comes from the unique manufacturing process of LactoPlan. The specific strain of *Lactobacillus plantarum* in LactoPlan is manufactured by solid-state fermentation on a feed grain substrate which tends to be heartier than those grown on artificial substrates. The microbe is then acclimated to utilize nutrients that are commonly found in diets. LactoPlan retains lactic-acid and other metabolites created during fermentation.

LactoPlan is made by Nutraferma. Nutraferma is an innovative biotech solutions company whose research and development efforts have led to patented breakthroughs in the areas of direct-fed microbials, high-value proteins, state-of-the-art yeast products, bioactive peptides, and phytogenic additives. Nutraferma also pioneered the development and use of large-scale solid-state aerobic fermentation. For more information, contact Nutraferma by calling +1-712-277-2011, emailing info@nutraferma.com or by visiting www.nutraferma.com.

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