

NZYMES® DIRECT-FED MICROBIALS & DIGESTIVE ENZYME BLENDS

PERFECT FOR PEOPLE AND THEIR PETS



BacPak Plus

FOR PETS OF ALL AGES

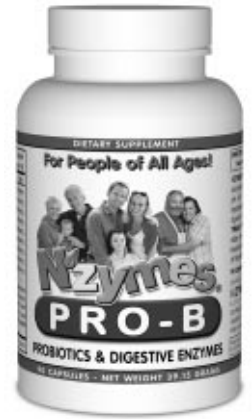
NZYMES® BacPak Plus is a blend of live, viable, and naturally occurring micro-organisms and digestive enzymes. This unique, micro-encapsulated blend helps to promote better digestion and improved assimilation of foods to optimize the health of the digestive tract and immune system. **For pets of all ages.**

The special **Micro-Encapsulation** process used provides key protection against the breakdown from heat and stomach acid and insures that 95% of the viable bacteria reach the GI tract.

Pro-B

FOR PEOPLE OF ALL AGES

NZYMES® Pro-B is a blend of live, viable, and naturally occurring micro-organisms and digestive enzymes. This unique, micro-encapsulated blend helps to promote better digestion and improved assimilation of foods to optimize the health of the digestive tract and immune system. **For people of all ages.**



Natural Solutions for Today's World!

We've all heard the saying, "Death begins in the colon." Many practitioners of alternative medicine believe that a disruptive ecology of the gastrointestinal tract may cause up to ninety percent of all known illness and disease. Animals get sick when their gastrointestinal tract becomes disrupted. Beneficial (friendly) microorganisms can no longer flourish in needed numbers and in the proper balance.

WHAT ARE MOST COMMON CAUSES OF GASTRO-INTESTINAL DISRUPTION?

The most common cause is past and present use of antibiotics. This is the single most contributing factor involved in the breakdown of the flora in the GI tract. Perhaps you are not personally taking antibiotics or giving your pet antibiotics, but unless you are taking constant precautions with your family and pet's food and water, then they are most likely still consuming antibiotics on a regular basis. Every time you or your pets drink chlorinated water, or eat antibiotic-laden foods, or take prescription antibiotics to fight infection, significant portions of the body's key beneficial bacteria often become depleted as well as the destruction of bad bacteria. An added source of damage comes from stress and excessive sugar consumption which also interfere with the balance of good bacteria in our gastrointestinal system.

We are now being faced with increasing numbers of bacteria that are immune to antibiotics. In 1928, Alexander Fleming discovered the 'miracle antibiotic' penicillin. During the Second World War, this antibiotic was made widely available to eliminate the most unmerciful of wartime killers; infected wounds. Mass production of this antibiotic began soon after its discovery, and was eventually administered to everyone with bacterial infections. Four years after the mass production of penicillin started, a frightening and unexpected phenomenon began to occur. Some of the deadly bacteria the antibiotic was supposed to destroy began developing resistance. This phenomenon has continued and is now a really serious problem. In today's environment it is literally becoming very dangerous for you or your animals to get sick. That is why it is critical for you to know about direct-fed microbials and live digestive enzymes - the natural solutions of our times.

BAC-PAK PLUS DIRECTIONS: Mix the NZYMES® BAC-PAK PLUS powder with your pet's daily meal (see amounts below). Adjust levels to the individual animal's needs. During periods of increase stress or antibiotic use it is suggested to double or triple the daily maintenance levels shown below.

PET SIZE	DAILY MAINTENANCE
10 lbs. or less	1/8 gram daily - 1/8 scoop total
11-40 lbs.	1/4 gram daily - 1/4 scoop total
41-200 lbs.	1/2 gram daily - 1/2 scoop total
201-400 lbs.	1 gram daily - 1 scoop total
800-1000 lbs. Horse	1 1/2 to 2 grams daily - 1 1/2 to 2 scoops total

GUARANTEED ANALYSIS	
Total Lactic Acid Producing Bacteria	1 Billion Colony Forming Units per gm. (Lactobacillus acidophilus, Bifidobacterium thermophilum, Bifidobacterium longum, Enterococcus faecium)**
alpha-Amylase (Aspergillus oryzae)	3560 µg starch hydrolyzed/minute/g.
Protease (Aspergillus oryzae)	475 µg amino acids hydrolyzed/minute/g.
Hemi-Cellulase (Aspergillus niger)	410 µg hemicellulose broken-down/minute/g.
Phytase (Aspergillus niger)	240 µg of phytate hydrolyzed/minute/g.
Cellulase (Aspergillus niger)	190 µg cellulose broken-down/minute/g.
Lipase (Aspergillus oryzae)	140 µg fatty acids hydrolyzed/minute/g.
Pectinase (Aspergillus oryzae)	95 µg pectin broken-down/minute/g.
beta-Glucanase (Aspergillus niger)	70 µg Oligosaccharides hydrolyzed/minute/g.

**not recognized as essential nutrients by AAFCO dog and cat food nutrient profiles.

INGREDIENTS: Dried Whey, Active Dried Yeast, Ground Flaxseed, Yucca schidigera extract, Dried Aspergillus oryzae Fermentation Extract Product, Dried Aspergillus niger Fermentation Extract Product, Lactobacillus acidophilus, Bifidobacterium longum, Bifidobacterium thermophilum, Enterococcus faecium, Bacillus subtilis, and Silicon Dioxide. **ALL INGREDIENTS ARE MADE IN THE U.S.A**

PRO-B DIRECTIONS:

Adults / Children: General daily usage is one (1) 450 mg. capsule.

Take the NZYMES® Pro-B capsule on an empty stomach with 8 ounces of water. Each bottle contains 90 capsules which is a 3-month supply for the average adult.

GUARANTEED ANALYSIS:

Lactic Acid Producing Bacteria	2.1 Billion Colony Forming Units per gm. (Lactobacillus acidophilus, Bifidobacterium Thermophilum, Enterococcus faecium)
alpha-Amylase (Aspergillus oryzae)	18,750 µg starch hydrolyzed/minute/g.
Protease (Aspergillus oryzae)	2500 µg amino acids hydrolyzed/minute/g.
Hemi-Cellulase (Aspergillus niger)	2200 µg hemicellulose broken-down/minute/g.
Phytase (Aspergillus niger)	1,200 µg of phytate hydrolyzed/minute/g.
Cellulase (Aspergillus niger)	1,000 µg cellulose broken-down/minute/g.
Lipase (Aspergillus oryzae)	750 µg fatty acids hydrolyzed/minute/g.
Pectinase (Aspergillus oryzae)	500 µg pectin broken-down/minute/g.
beta-Glucanase (Aspergillus niger)	375 µg beta glucans hydrolyzed/minute/g.

INGREDIENTS: Dried Yucca Schidigera, Dried Aspergillus oryzae Fermentation Product Extract, Dried Aspergillus niger Fermentation Product Extract, Lactobacillus acidophilus, Bifidobacterium Thermophilum, Enterococcus faecium, and Bacillus subtilis.

HOW DO DIRECT-FED MICROBIALS WORK?

Direct-fed microbials work by attaching themselves to the intestinal wall. These friendly bacteria keep pathogenic bacteria from gaining a foothold. In addition, they produce lactic acid and hydrogen peroxide, (which kill most disease-causing bacteria). Some yogurt and other fermented food have these cultures, but may not be strong enough for the problems being caused in today's environment. This is why daily supplementation with direct-fed microbials is so important. It only costs a few pennies a day to supplement yourself and your pet's with direct-fed microbials and digestive enzymes.

WHAT ARE THE BENEFITS:

In sufficient numbers, these friendly bacteria keep disease-causing bacteria from overpopulating the intestine. Also, they improve digestion, manufacture B vitamins, and boost immune system activity. Because they boost immunity, they positively influence the overall health of the individual.

UNDERSTANDING DIRECT-FED MICROBIALS

These help supplement with the production of Lactic Acid producing bacteria in the digestive tract which helps in balancing the pH and colonization of beneficial bacteria in the lower intestinal tract. This creates a hostile environment for undesirable bacteria to colonize and enhances the growth of several digestive enzymes found in various stages in the digestive system. The synergistic effect aids in maintaining more normal intestinal functions.

MICRO-ENCAPSULATED PROTECTION

The special **Micro-Encapsulation** process provides key protection against the breakdown from heat and stomach acid and insures that 95% of the viable bacteria penetrate to the GI tract.

Lactobacillus Acidophilus - Micro encapsulated species specific, to stimulate natural lactic acid production, creating a sudden down shift in the pH in the small intestine. Increasing levels of lactic acid allows for greater fluid and nutrient transfer across the intestinal wall. Lactobacillus acidophilus is the most commonly used direct-fed microbial, or "friendly" bacteria. Such healthy bacteria inhabit the intestines and vagina and protect against the introduction and proliferation of "bad" organisms that can cause disease. The breakdown of food by L. acidophilus leads to production of lactic acid, hydrogen peroxide, and other by-products that make the environment hostile for undesired organisms. L. acidophilus also produces lactase, the enzyme that breaks down milk sugar (lactose) into simple sugars. People who are lactose intolerant do not produce this enzyme. For this reason, L. acidophilus supplements may be beneficial.

Bifidobacterium Thermophilum - Micro encapsulated species specific, designed to be viable (live) until it reaches the small intestine, aids in stimulating the lactic acid production. A very beneficial colonizer in the intestinal tract that replaces the space vacated by the undesirable bacteria after a downshift in the pH. This particular strain is very quick to colonize (multiply) in the intestinal tract.

Bifidobacterium longum - (Micro encapsulated) for storage and viability until it reaches the lower gut (small intestine). This provides very quick response time at colonizing (attaching to the lining of the intestinal tract) therefore leaving less space for undesirable bacteria to attach. It also helps to maintain a higher percentage of fluid and nutrient assimilation through the intestinal wall.

Enterococcus faecium - (Micro encapsulated) durable strain of bacteria that is a great stimulator of lactic acid production in the intestinal tract of the individual. This particular strain is very beneficial in the synthesizing of B vitamins.

Bacillus Subtilis - A very durable strain of bacteria. It enhances lactic

acid production. This particular strain demonstrates properties that have shown to reduce nitrates and stimulates the production of additional enzymes (amylase, protease and lipase).

HOW DO DIGESTIVE ENZYMES WORK?

Specific digestive enzymes have been selected to break down the major substrates of nutrients that are being consumed by the individual thus enhancing the overall nutrient assimilation of the food that is being consumed. This relates to more bioavailable nutrients being used for the health of the Individual and less being passed away in the stools.

Amylase - Increases the utilization of starches that are being consumed by reducing the molecules to smaller molecular weights, which can be more readily absorbed into the blood system.

Protease - or proteolytic enzymes enhances the utilization of the proteins that are being consumed, reducing them to usable peptides and amino acids which make this substance more bio-available to the individual. Protease helps to clean up your body by removing the unwanted protein from your circulatory system and blood stream, and helps restore your energy and balance.

Hemi-cellulase - Readily digestible cellulose is held in bundles by Hemi-cellulos fractions. Hemi-cellulase specifically aim at and break-down these hemi-cellulose fractions opening up the cellulose to make it more available for digestion.

Phytase - Hydrolyzes phytic acid which is wide spread in nature and the principle form of phosphorus in many seeds (phytic acid contents are about 60-80% of the total phosphorus in seeds), Phytic acid binds minerals such as iron, zinc, calcium and magnesium, therefore it reduces their bioavailability.

Cellulase - Enhances the utilization of the fibrous portions of the food that is being consumed.

Lipase - Helps to supplement the inherent enzyme system in the break down of fats and lipids. Also increases the bioavailability of the fat soluble vitamins.

Pectinase - Reduces the structure size of the plant pectin into galacturonic acid to maintain water balance to avoid excessive fluid passage, which is essential for cell growth and development.

Beta-glucanase - Specific enzyme to hydrolyze and enhance the bio-availability of specific types of starch molecules.

YUCCA SCHIDIGERA POWDER

Yucca Schidigera is a natural plant fiber which has ammonia binding capabilities. This helps stimulation of blood flow by reducing the blood cholesterol and abnormal blood triglycerides. It also helps to reduce the inflammation in joints, which include chronic arthritis and decreases the amount of toxins available for absorption from the digestive system. The body's elimination system (kidneys, Liver, lymph and blood) are thus less taxed to remove poisons from the body. This lowers the build up of toxins in the joints and elsewhere which seem to be related to diseases like arthritis.

Direct-fed microbials consist of approximately 500 different species of bacteria that inhabit the intestine. These bacteria are often referred to as 'friendly flora' or 'beneficial' bacteria.