ENTEROSURE™

A multi-strain probiotic for backyard poultry

Backyard flock owners strive for strong and healthy, long living, high producing birds. Enteric pathogens and gut health issues pose a threat to the health and productivity of birds in backyard flocks. These challenges call for an effective and comprehensive solution to support gut health such as ENTEROSURE™.

ENTEROSURE is an effective proprietary *Bacillus* blend that supports a resilient microbiome by inhibiting pathogen growth while promoting, restoring and maintaining healthy bacteria.

Why intestinal health?

Gut health is directly and indirectly connected to overall animal well-being. Pathogenic bacteria in the gut can damage the intestinal lining allowing pathogens to enter the host, resulting in inflammation and inefficient nutrient absorption.

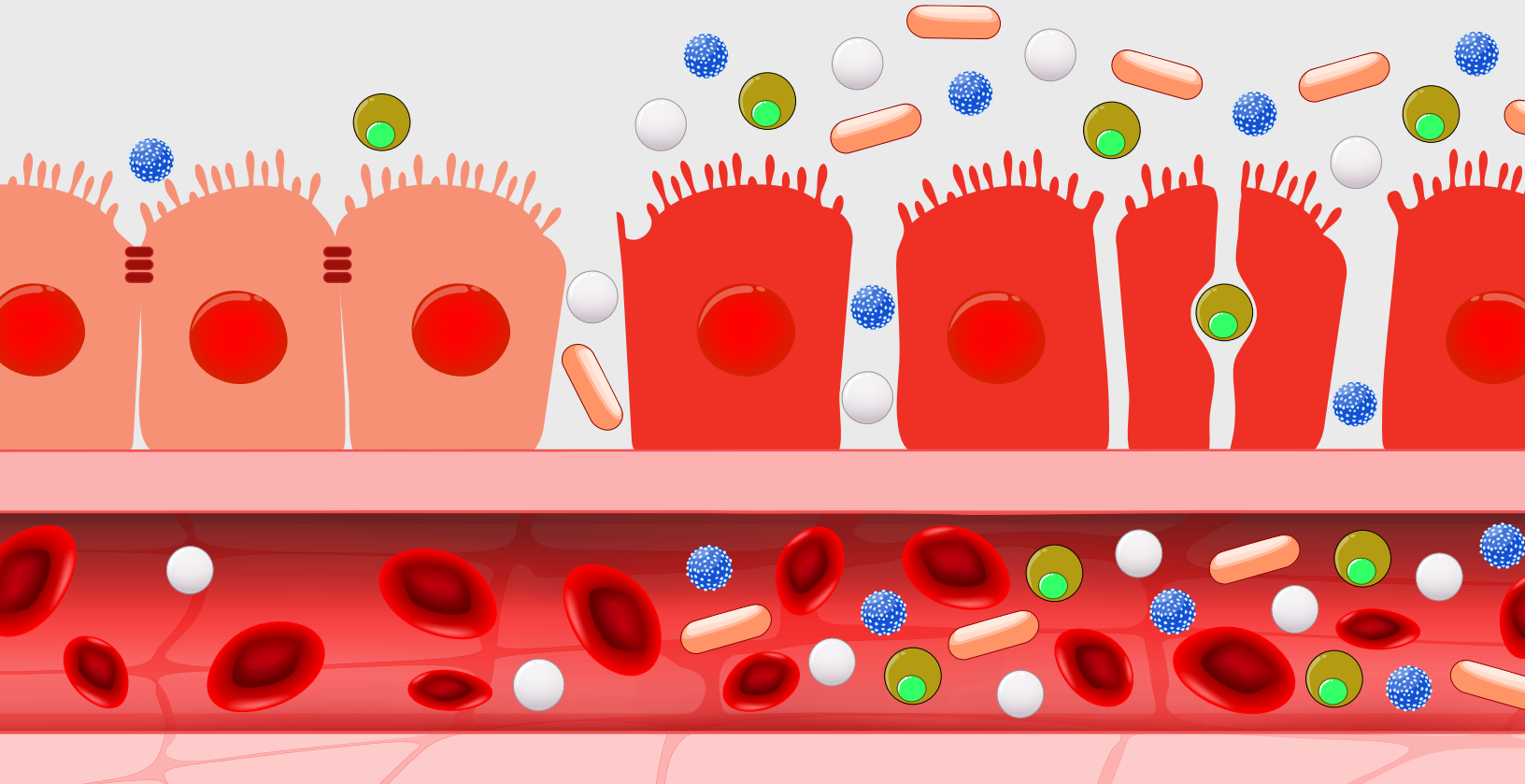
By inhibiting the growth of pathogenic bacteria, the *Bacillus* strains in ENTEROSURE help maintain a healthy microbial balance in the digestive tract.

ENTEROSURE key features:

- **Delivers research-proven efficacy of a blend of three proprietary *Bacillus* strains, PB6, G3 and FxA, against a broad range of pathogens, including *Clostridium spp*, *Escherichia coli* and *Salmonella*[1]**
- **Heat stable during pelleting**
- **Compatible with a wide range of feed ingredients including mineral/vitamin premixes, organic acids and most antibiotics**

Protection in the intestine leads to lower pathogen load

Pathogenic overgrowth can lead to intestinal permeability in the gut



IN VITRO EFFICACY: PROVEN PATHOGEN INHIBITION AGAINST *CLOSTRIDIUM* SPP.

The proprietary blend of probiotic *Bacillus* strains in ENTEROSURE secrete antimicrobial metabolites that inhibit the growth of specific pathogenic bacteria such as *E. coli*, *Clostridium spp.* and *Salmonella*. These antimicrobial proteins disrupt the membrane of bacteria ultimately killing the pathogenic bacteria without harming the beneficial gut microflora. This mechanism helps to promote, restore and maintain a healthy microbiome.

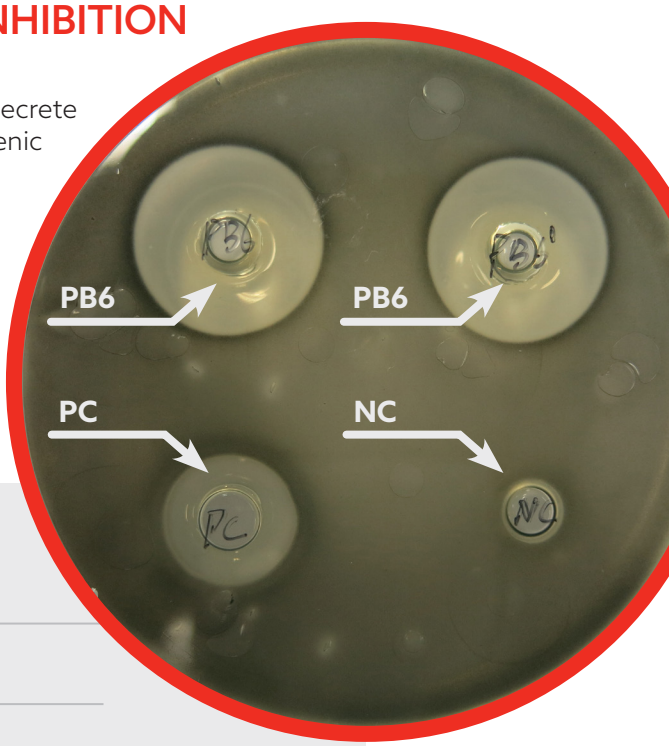


Figure 1: Effect of *B. subtilis* PB6 against *C. perfringens*, ATCC 13124 with positive control (PC, Enramycin 10 ppm) and negative controls (NC, sterile water). *B. subtilis* PB6 had larger clearing zones that demonstrates inhibition of *C. perfringens*.[1]

Percent Growth of *Salmonella* & *E. coli* when incubated with *Bacillus* FxA + G3*

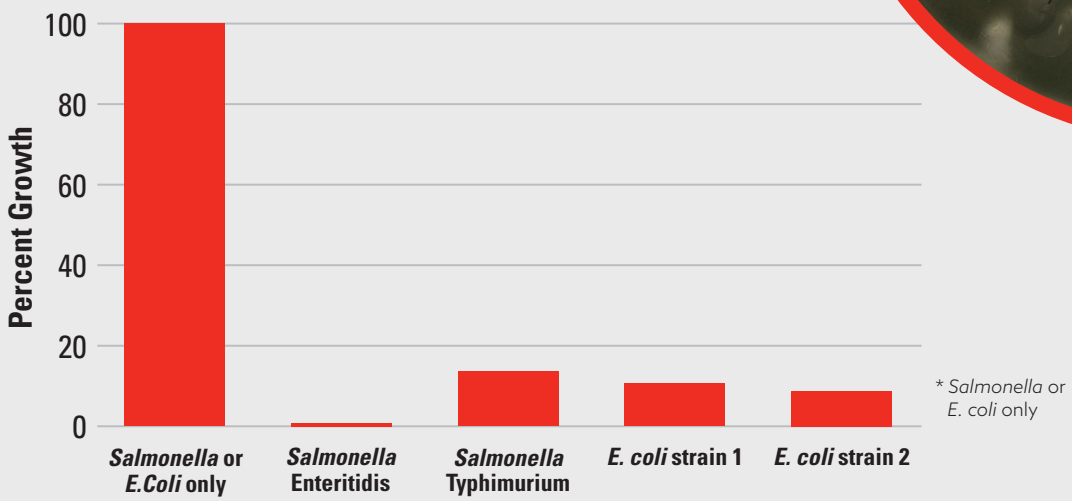


Figure 2: The ability of *Bacillus* strains FxA and G3 to inhibit microbial growth was evaluated in a microtiter plate assay measuring the optical density at 20 hours[2]. Negative control was the organism only.

References:
1. Antibacterial Spectrum of *Bacillus subtilis* PB6 Against Enteric Pathogenic Bacteria in Animals, WP-14-00076.
2. Development of a New Probiotic Product Inhibitory to *Salmonella Spp.* And *E. Coli*, WP 20-640

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