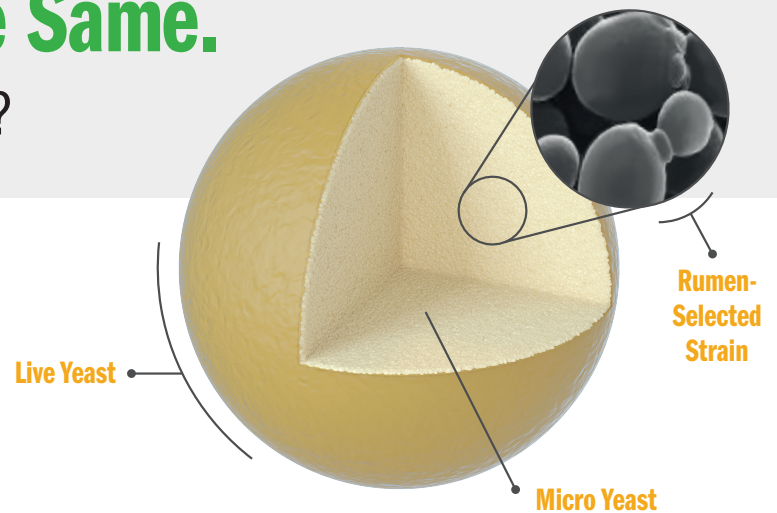


Dual-Action Gut Technology

Not All Yeasts Are The Same.

What Is Special About Live Yeast?

**Designed for ruminants,
ACTIMAX+ is a live,
probiotic yeast with a high
concentration of CFU.**



Higher CFU/Head/Day Together With The Oxygen-Consuming Benefit Are Associated With:



Greater fiber digestion
and VFA production



Reduction of lactic
acid production



Improved animal
performance and well-being

A 5 Gram Feeding Rate Delivers:

- 40 billion cfu/live cell yeast (ActiMax)
- 4 billion cfu (4x strains) of bacillus

50 lb. bag

Bacillus + Live Yeast: Dual-Action Gut Technology

Enhance Animal Performance While Reducing Pathogen Pressure Through Complementary Microbial Modes Of Action

Mode of Action

Bacillus Spp. (Spore-Forming Bacteria)		Synergistic Effects (1 + 1 = 3)	
Survivability	Heat-stable spores survive pelleting & gastric passage	Microbial Balance	Yeast supports beneficial flora → enhances Bacillus establishment
Produces Extracellular Enzymes	→ Amylase, Protease, Cellulase ↑ Nutrient Digestibility	Pathogen Control (Multi-Barrier Defense)	1. Direct inhibition (Bacillus antimicrobials) 2. Pathogen/toxin binding (yeast cell wall) 3. Microbiome stabilization (both)
Secretes Antimicrobial Compounds	→ Lipopeptides, Bacteriocins → Inhibit E. Coli, Salmonella, Clostridium	Digestive Efficiency	Enzymatic breakdown (Bacillus) + optimized fermentation (yeast) → ↑ nutrient availability → ↑ feed efficiency
Gut Protection	Competitive exclusion of pathogenic bacteria	Physiological Impact	· Improved gut integrity (reduced inflammation, tighter junctions) · Enhanced immune readiness (β-glucan stimulation) · More consistent intake and performance
Live Cell Yeast (Saccharomyces Cerevisiae)		Performance Outcomes	↑ Average Daily Gain (ADG) ↑ Feed Conversion Efficiency ↑ Milk production (ruminants) ↓ Incidence of digestive upsets ↑ Consistency during stress (weaning, ration shifts, heat)
Rumen Stability	→ Oxygen scavenging promotes anaerobic conditions → Stabilizes rumen/hindgut pH		
Supplies Growth Factors	→ B-vitamins, peptides, organic acids		
Cell wall fractions (MOS, β-glucans)	· Supports pathogen and mycotoxin risk management · Support immune modulation		

Properties of different Bacillus strains

Variable: Probiotic Traits	B. licheniformis	B. amyloliquefaciens	B. subtilis	B. pumilus
Production				
Lactic acid	Best	Low	Good	Good
Enzyme				
Amylase	None	Best	Good	None
Xylanase	None	Best	None	Good
Cellulase	Best	Best	Good	Good
Inhibition				
Pathogens ¹				
Staphylococcus aureus	3	4	0	5
Clostridia perfringens A	0	4	5	3
Salmonella enterica Heidelberg	0	3	3	2
Salmonella enterica Hadar	0	5	4	2
Salmonella enterica Dublin	0	5	3	2
Salmonella enterica Enteritidis	0	3	0	4
Salmonella enterica Typhimurium	0	4	0	0
Salmonella enterica Typhi	0	0	4	0
E. Coli 0138 STEC	0	3	4	3
E. Coli 0157:H19 STEC	0	3	5	4
E. Coli 0157:H43 STEC	2	3	3	3
E. Coli 0149:H10 STEC	2	4	3	3
E. Coli 0141:H4 STEC	2	4	4	3