

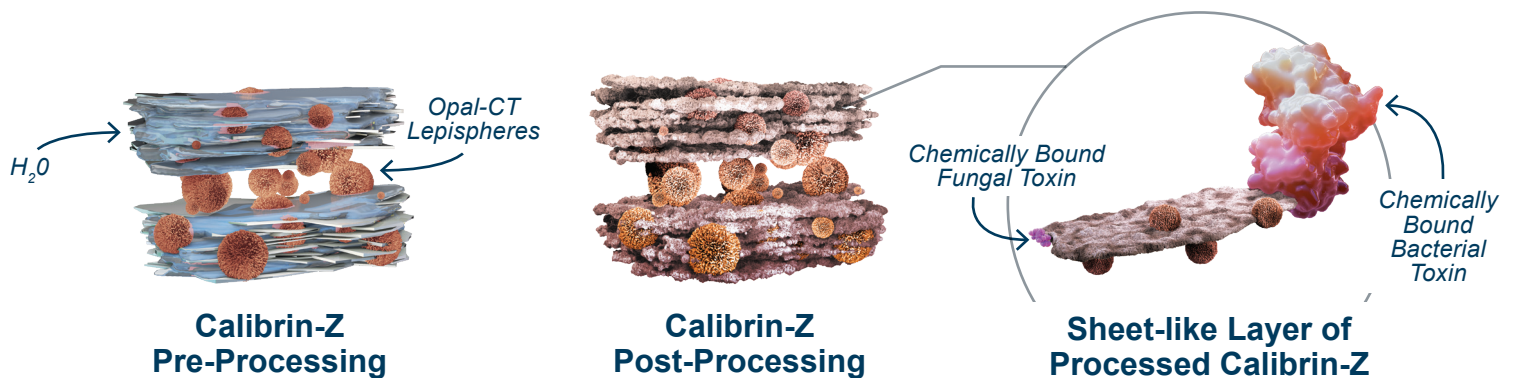
# BROAD-SPECTRUM BIOTOXIN CONTROL

# Calibrin<sup>®</sup>-Z

Calibrin<sup>®</sup>-Z, the most efficacious, mineral-based feed additive, protects poultry and livestock from biotoxins that reduce performance and cause morbidity or mortality.

## Structure and Processing

Calibrin-Z features naturally occurring phyllosilicate layers with opal-CT lepispheres that, together with our proprietary thermal-processing method, promote the binding of multiple biotoxins.



## Adsorption that Matters

Independent laboratories have verified that Calibrin-Z effectively binds mycotoxins and bacterial exotoxins and endotoxins in vitro.

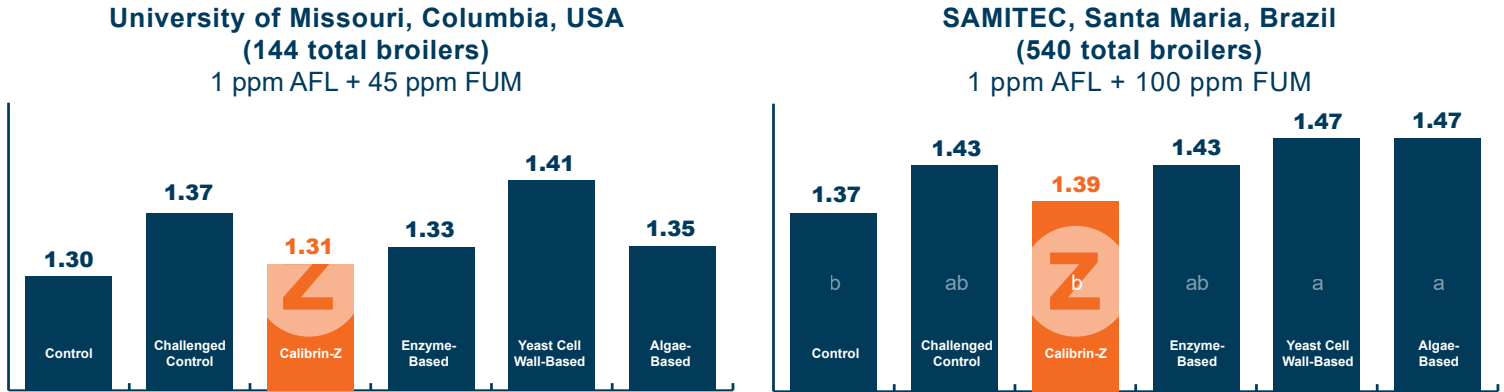
Polar Mycotoxins <sup>1</sup>	Nonpolar Mycotoxins <sup>1</sup>	<i>Clostridium perfringens</i> Toxins <sup>2</sup>	<i>Escherichia coli</i> Exotoxins <sup>2</sup> and Endotoxin <sup>3</sup>	<i>Clostridioides difficile</i> Toxins <sup>2</sup>	<i>Vibrio parahaemolyticus</i> Toxins <sup>4</sup>
Aflatoxin	Zearalenone	Alpha-toxin	Heat-labile toxin	Toxin A	PirA
Ergotamine	Fumonisin	NetB toxin	Shiga-like toxin	Toxin B	PirB
Ergovaline	Ochratoxin		LPS		
Cyclopiazonic acid	T-2 toxin				

Sources: <sup>1</sup>Trilogy Analytical Laboratory, USA; <sup>2</sup>USDA, Beltsville, MD; <sup>3</sup>Gilbraltar Laboratories, Fairfield, NJ; <sup>4</sup>National Cheng Kung University, Taiwan.

## Superior Gain and Efficiency in Mycotoxin-Challenged Broilers

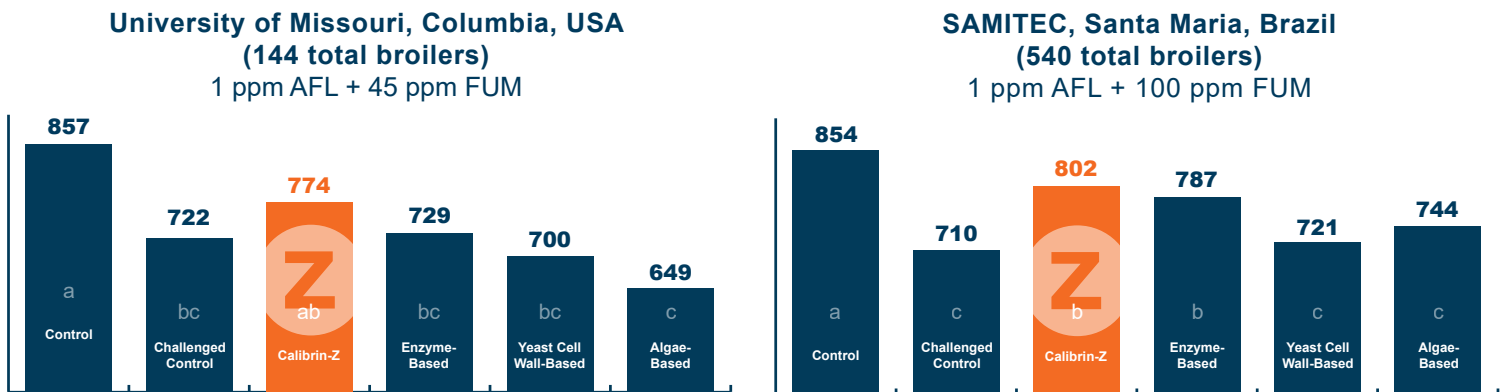
Two broiler challenge studies were conducted evaluating the ability of Calibrin-Z versus competitor toxin binders containing various additional formulated additives to reduce the negative effects of both aflatoxin and fumonisin.

### FEED CONVERSION RATIO DAYS 0 TO 21



Data from these studies indicates that including Calibrin-Z in a mycotoxin-contaminated diet, kept broiler feed conversion ratios equivalent to the unchallenged control group.

### WEIGHT GAIN (G) DAYS 0 TO 21



Data from these studies indicates that including Calibrin-Z mitigated reduced weight gain in broilers fed a mycotoxin-contaminated diet. Broilers fed Calibrin-Z performed better than those fed other commercially available products.

# Calibrin<sup>®</sup> Z

Use alone or with other Amlan products in synergistic combinations for optimal health and performance results.

