

# Balancius™

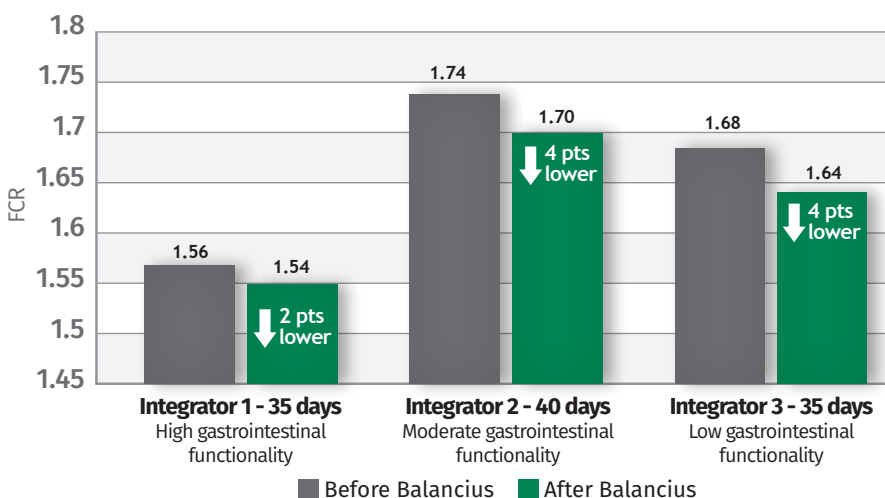
## COMMERCIAL “COMPLEX-WIDE” RESEARCH HIGHLIGHTS

### Overview

Over the past year Balancius™ has been tested by some of the biggest and progressive poultry companies in the U.S., to examine Balancius impact on feed conversion and to capture any additional gastrointestinal benefits that were observed from use of Balancius. This document provides highlights from three poultry integrators. A total of 14 integrator trials are currently underway.

### Customer complex trial results

#### Feed conversion results



**3** POULTRY INTEGRATORS

**3** COMPLEX WIDE TRIALS

**300,000-1 MILLION BIRDS** PROCESSED PER WEEK (FOR AT LEAST SIX WEEKS PER COMPLEX)

BIRD AGE RANGED FROM **35 TO 40 DAYS**

**Balancius** FED THROUGHOUT THE LIFE OF THE BIRD AT 25K LSU

### WHAT THEY'RE SAYING

(comments from live production, veterinarians and nutritionists)

“The birds have a sheen to them!”

“Best weight gain in twelve months.”

“Birds looked healthier and litter was a lot drier.”

### CUSTOMER ROI

**2:1** Feed conversion only

**>3:1** When gastrointestinal functionality benefits (dry litter, uniformity, etc.) were factored in



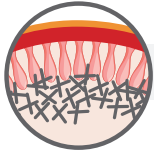
# GASTROINTESTINAL THEORY

SYNERGY BETWEEN BALANCIUS AND GASTROINTESTINAL FUNCTIONALITY...WHY?

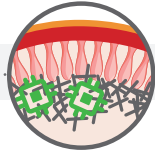


**Typical environmental challenges can stress the animal, meaning:**

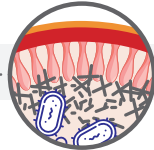
- More bacterial population shifting in the intestine
- More dead bacteria in the gut for Balancius to target
- Hydrolyzing PGNs produces metabolites for better microflora in the intestine
- Better performance



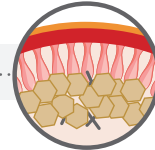
PGNs accumulate in intestinal tract



Balancius hydrolyzes PGNs



"Good" bacteria feeds on smaller PGN debris



Nutrients are now able to be absorbed



Performance improves from better nutrient absorption

## Balancius™

Good for the gut



Goodarzi Borojeni, F., et al. Evaluation of a microbial muramidase supplementation on growth performance, apparent ileal digestibility, and intestinal histology of broiler chickens. 2019 Poultry Science 98:2080-2086. <http://dx.doi.org/10.3382/ps/pey556>.

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