

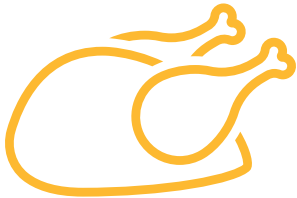


**Biostrong™
Dual**

Speed through
performance limits
with Biostrong™ Dual



Accelerate gut microbiome maturation and achieve efficient results by combining the power of two categories of additives – postbiotics and essential oil compounds (EOCs).



Supports Breast
Meat Yield



Decreases
Production Costs



Supports
Production
Performance



Increases Return
on Investments

Biostrong Dual also:

- Provides performance support for cocci vaccine programs
- Reduces micro bin space

EOCs and postbiotics work together to support improved health across the gut

Postbiotics and essential oil compounds (EOCs) are known for their beneficial effects on meat bird performance and feed intake. When consumed, EOCs and postbiotics each play a key role in distinct segments of the gut:

- Concentration of EOCs is high in the upper gut
- Postbiotics have a strong impact on the hind gut

EOCs

- Increase palatability of feed
- Based on published literature, EOCs support better digestion/absorption of nutrients through enzyme activity
- Active in first segments of the GIT, and are progressively absorbed in stomach/duodenum

Postbiotics

- Modulate bacteria, mainly in distal part of GIT
- Promote bacteria such as Parabacteroides, known to keep the immune system of animals in a state of active wakefulness
- Promote a bacterial population capable of breaking down complex carbohydrates (fibers) into simpler molecules
- Serve as fuel for the growth of beneficial bacteria that are able to maintain gut integrity

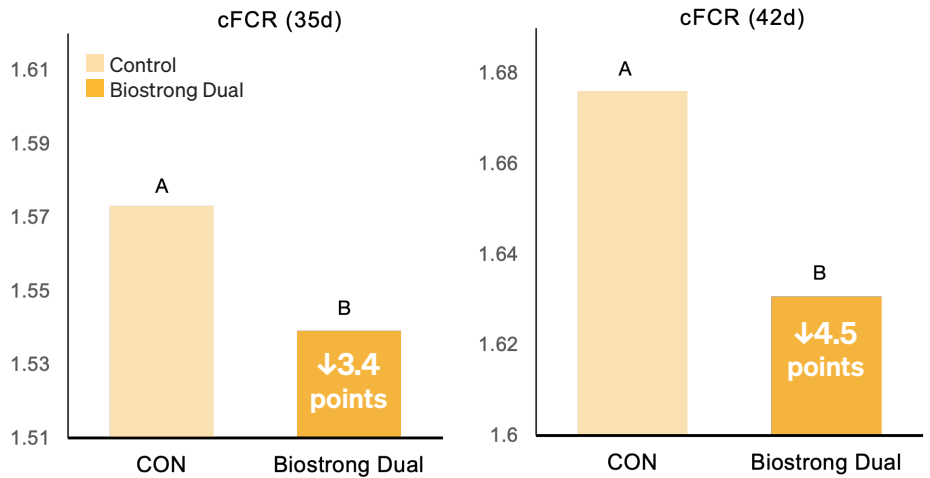
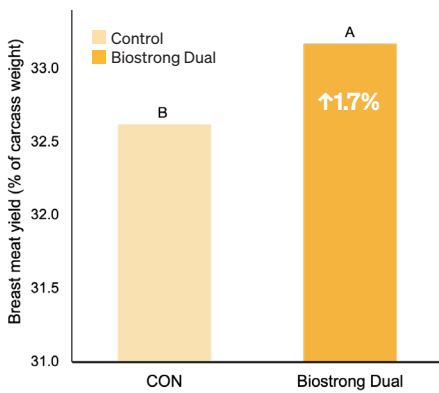
Nine independent trials were conducted in the U.S. under different conditions including controlled research and commercial conditions to evaluate the performance benefits of the product. Across these trials, birds fed Biostrong™ Dual at 0.8lb/ton showed:

- Higher ($P<0.05$) body weight (2.6% and 3.5% improvement at 35 and 42d, respectively)
- Improvement $P<0.05$ in adjusted cumulative feed conversion ratio (3.4 and 4.5 points reduction, improvement at 35 and 42d, respectively)
- Higher ($P<0.05$) feed intake at 35d and numerically higher feed intake at 42d
- Increased ($P<0.05$) breast meat yield (1.53% increase) from five trials in which the birds were processed

Biostrong™ Dual had higher body weight and lower cFCR at 35d and 42d



Biostrong Dual had improved breast meat yield than CON (5 trials)



Biostrong Dual is supported by Cargill Animal Nutrition, which brings together poultry nutrition, health, and performance under one roof for our customers. With an integrated team, nutritional expertise, and tailored plans built on data-driven insights, Cargill Animal Nutrition helps customers get ahead of day-to-day challenges.

For more information on Biostrong Dual, contact your Cargill Animal Nutrition representative or visit CargillAnimalNutrition.com/Poultry