

Prepare Layer Operations for Higher Performance Using Phytogetic Feed Additives



Given ever-changing industry challenges and increased pressure for improved, functional nutrition, it's time for the egg industry to become familiar with the many benefits of [phytogetic feed additives](#). These natural ingredients deliver optimized layer performance by supporting nutrient utilization, as well as gut health and integrity. This translates into reduced input costs and increased profitability for egg producers. Known for their broad-spectrum efficacy, phytogetics have been used to improve production performance globally for three decades.

[Phytogetics](#), commonly defined as plant-based feed additives or botanicals, represent a group of natural substances used in animal nutrition. These substances are derived from herbs, spices and other plant extracts. Some common phytogetic ingredients used in layer rations are saponins, pungent substances, essential oils, flavonoids and bitter substances. Offering major and minor active components, true phytogetics made with natural, plant-derived substances offer powerful synergistic effects.

Four primary benefits are driving adoption of phytogetics in animal agriculture:

- Supports animal health and performance.
- Uses natural, not chemically created, ingredients.
- Supports judicious use of antibiotics.
- Helps protect the environment.

Natural performance enhancers

Phytogetic feed additives work to support intestinal integrity to yield higher-performing birds via improved feed efficiency.

Trials demonstrate the benefits of feeding phytogetics to layers¹:

- Enhanced laying rate.
- Feed conversion rate improved ≥ 2 percent.
- Improved nutrient digestibility and retention.
- Increased egg weight and egg mass.
- Improved shell quality.
- Reduced ammonia emissions up to 50 percent.
- Lower production costs per produced egg.
- 3:1 ROI.

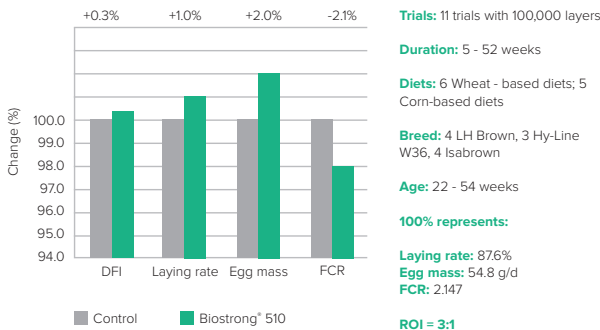
1. Delacon research, Biostrong[®] 510 trials in layers.

Put plant power to work in layer nutrition programs

Throughout history, plants and herbs have been used for medicinal benefits. Delacon, a leader in phyto-genics, has spent the last 30 years harnessing the power of nature to enhance animal performance in a sustainable and profitable manner.

Product performance research has indicated inclusion of Biostrong® 510 in laying hens' diets increases daily feed intake (DFI), laying rate and egg mass. In addition, feed conversion rate (FCR) is improved. These benefits can be captured through increased production or reduced feed costs while maintaining optimal performance.

Biostrong® 510 improves performance of laying hens



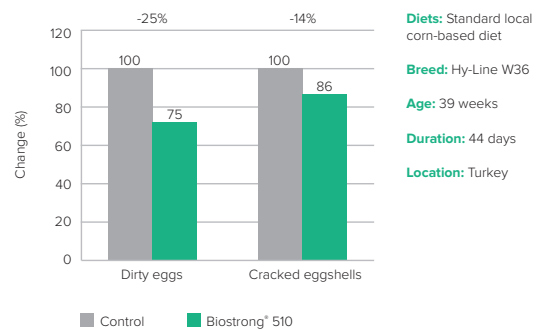
Average performance effects of Biostrong® 510 in 11 layer trials with different breeds (Lohmann Brown, Isabrown and Hy-Line W36) and different diets (corn- and wheat-based). Trials duration varied from five weeks to a full cycle.

A phyto-genic future for an egg industry in transition

Just like layer nutrition has changed, so have consumers' demands. Pressure to support cage-free practices has influenced the largest egg customers: fast food giants, grocery retailers and restaurant chains, which represent 70 percent of the U.S. market. With pledges made for purchasing only cage-free eggs within the next 10 to 15 years, the layer industry is making investments in cage-free housing.

To ensure profitability, producers need tools that can support egg quality during extended laying cycles and offer enhanced gut health and immune function in cage-free environments. [Quality, plant-based phyto-genic feed additives](#), backed by extensive research and third-party validation, offer confidence and the guts to grow your business.

Biostrong® 510 reduces dirty and cracked eggs



In a field trial, feeding Biostrong® 510 reduced the number of dirty eggs by 25 percent and cracked eggshells by 14 percent.

Benefits of phytogenics for late-production layers

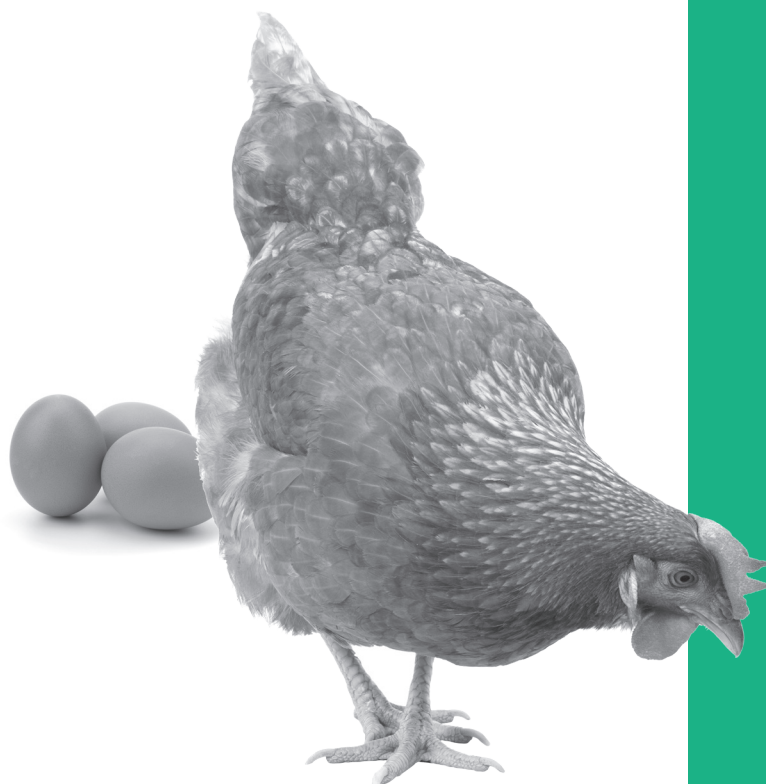
Shell strength commonly decreases over the laying cycle. Feeding Biostrong® 510 to late-production layers significantly increased egg production and eggshell strength.

Biostrong® 510 improves egg and eggshell quality

	Control	Biostrong® 510	
Eggshell color	25.8 + 0.84	24.5 + 0.80	Diets: Standard local corn-based diet
Yolk color, R. C. F.	7.16 - 0.06	7.27 + 0.05	Breed: Hy-Line W36
Eggshell strength, kg/cm ²	2.62 + 0.08 ^a	2.97 + 0.07 ^a	Age: 60 weeks
Egg shell thickness, mm/100	33.9 + 0.37	34.4 + 0.34	Duration: 35 days
Haugh unit	85.1 + 1.12	84.8 + 0.75	Location: Konkuk University, Korea

Results of Biostrong® 510 in a 35-day trial with 60-week old Hy-Line W36 layers, fed a corn-soy diet.

^{a, b} mean + SE values in a same row with no common superscripts are significantly different (P<0.05)



Grow with the gold standard for quality phytogenics

Delacon's pioneering global leadership in phytogenics has delivered proven performance to U.S. customers for nearly two decades. Delacon phytogenic feed additives are well researched, have clearly understood modes of action and come with the highest rate of product quality and consistency.

To ensure consistency in each bag of phytogenics, Delacon controls every point of the production process. The company's [quality management procedures](#) include:

- Working with certified suppliers who guarantee the supply of raw materials according to purchase specifications.
- Analyzing the delivered raw materials in the company's on-site lab to ensure conformity to specifications.
- Implementing audited and standardized production technology, [microencapsulation processes](#), final product analyses and shelf life testing for the phytogenic product.

Delacon's Biostrong® 510 EC* is distinguished with the scientific gold standard in the feed industry: [zootechnical EU registration](#), which was achieved in 2017. The independent registration and rigorous approval process mean claims for enhanced poultry performance are documented with scientific evidence and validated by the European Commission. Delacon is the only company worldwide to have two zootechnical registrations for phytogenic products.

*While Biostrong® 510 is available globally, the zootechnical additive Biostrong® 510 EC is available only in Europe, due to different legislation and product registration frameworks and needs declaration as a zootechnical additive.

Add phytochemicals to your layer nutrition program

Take a look at Delacon phytochemicals and capitalize on improved nutrient digestibility and retention, enhanced laying rate, improved feed conversion, increased egg weight and egg mass, improved shell quality, reduced ammonia emissions and lower production costs of every egg.

Connect with **Dr. Stacie Appleton**, regional technical manager for Delacon USA, to explore the benefits of phytochemicals for your layer operation.

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Read more:

- [6 top questions about phytochemical feed additives](#)
- [A guide for phytochemicals in the post-AGP era](#)
- [Hen dietary considerations for improving egg quality](#)
- [Tips for selecting phytochemicals](#)