# Lumin® L

## Strategically formulated intestinal support

Intestinal health is the overriding determinant for overall health, performance, and, ultimately, profit. The epithelium of the gastrointestinal tract and the associated defense systems are responsible for absorption of needed nutrients while excluding toxins and pathogens. These crucial roles are threatened by colonization of pathogenic bacteria, stress-induced leaky gut and chronic inflammation, and the need to adapt to changing diets and variable feedstuffs. Failure to address these diverse challenges brings both direct and indirect costs in terms of productivity, efficiency, and medical treatment expense.



### Opportunities exist to pro-actively support intestinal health and function.

- → Manipulating the gut microbiota to support beneficial species while inhibiting undesirable bacteria;
- → Physically and metabolically enhancing absorptive capability;
- → Strengthening tight junctions and gut integrity; and,
- → Modulating inflammatory responses and minimizing oxidative stress and damage.

## **Lumin L: The Power of Synergy**

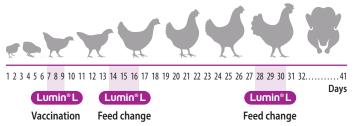
Lumin L's purposeful combination of esterified butyrate, naturally-sourced essential oils and plant extracts is available in liquid form to facilitate delivery through drinking water. Lumin-L supplies complementary bioactive compounds that have been shown to positively impact inflammation and immune response, villi health and absorptive capacity, oxidative stress, and the gut microbiota.

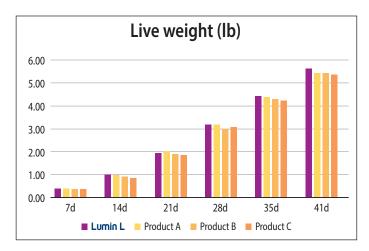
Select plant bioactives Natural antioxidants to modulate inflammation Inflammation Oxidative to limit the consequences and support immune of oxidative stress & Immunity Stress responses Lumin® L Intestinal Proven support of **villi** Monobutyrins and essential Microbiota Integrity health and development, oils for strong, targeted optimized nutrient absorption, antimicrobial activity and and tight junction integrity support of beneficial microbes



# **Lumin**<sup>®</sup> **L**—Field Trial Results

#### **Broilers**



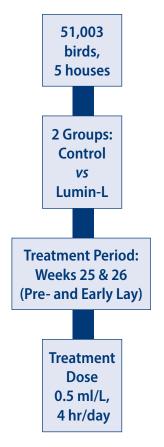


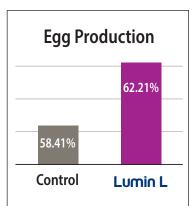
## Weight gain

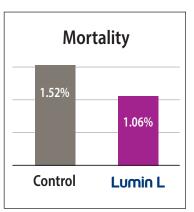
Lumin L: 2.22 oz/day

Competitors: 2.13, 2.12, 2.10 oz/day

#### Layers







## Lumin L—Liquid Intervention for a Practical Challenge Response

#### Recommended Usage:

#### RESPONSIVE

- It is critical to begin early in a disease progression; begin use as soon as daily mortality reaches 1 bird per 1,000.
- Include Lumin-L in drinking water at 16 oz per gallon.
- Continue dosing for 5 consecutive days.

#### **PROACTIVE**

- Begin administering Lumin-L 2 to 3 days before expected or observed stressors: change in environment or feed, vaccination, wet litter, dysbiosis.
- Include in drinking water at 8 oz per gallon.
- Continue dosing for 5 to 7 consecutive days.

LUMIN MULTI-COMPONENT GUT HEALTH SUPPORT IS ALSO AVAILABLE AS A DRY FEED ADDITIVE.

#### To learn more

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