Luma Ingredients

INGREDIENT COLLECTION



PRODUCT BROCHURE

Chitooligosaccharides

Feed Grade

Quality ingredients.
Thoughtfully delivered.

www.lumaingredients.com

SMALL MOLECULE. FUNCTIONAL INGREDIENT.

From chitosan to functional COS.



What is COS?

Chitooligosaccharides are functional oligosaccharides produced by enzymatic degradation of chitosan. The feed-grade profile specifies a degree of polymerization of 2-20.

Water-soluble. Biologically active. Low molecular weight.

THE MATERIAL PATHWAY

CHITOSAN	›	ENZYMATIC PROCESS	›	COS
Starting material		Biological degradation		Degree of polymerization 2-20

Gut function. Nutrient use. Immune support.

COS supports intestinal microflora, digestion, nutrient absorption and immunity, with non-toxic, non-antigenic metabolites. Its feed profile includes antibiotic-replacement potential without drug resistance, residues or damage to beneficial bacteria.

FOUR NUTRITION MARKETS

Across the nutrition landscape.



Livestock

Pigs, rabbits and other livestock.



Poultry

Chickens, ducks and other poultry.



Aquaculture

Fish, shrimp, crabs, shellfish and sea cucumbers.



Pets

Cats, dogs and other pets.

Nutrient uptake

Digestion and feed utilization

Intestinal balance

Microflora and mucosal support

Growth & immunity

Performance across animal categories

FEED INCLUSION

Application rates.

Suggested raw ingredient inclusion / g per tonne of feed

30-50 Suckling piglets	**50-80** Growing / finishing pigs	**30-50** Sows
20-30 Meat poultry	**30** Laying hens	**60-80** Aquatic animals

REPORTED FUNCTIONAL PROFILE

Immunity & liver

Supports immunity and disease resistance, protects the liver and offers antibiotic-replacement potential without resistance or residues.

Feed & meat quality

Promotes feed intake, mineral uptake, protein synthesis and lean meat yield; lowers the feed-to-meat ratio and improves meat quality.

Gut health

Balances microflora, supports beneficial bacteria and mucosal structure, improves nutrient absorption and helps prevent livestock and poultry diarrhea.

Reproduction

Supports sow reproductive performance, conception rate, piglet survival and litter weight.

Aquaculture & lipids

Supports growth, immunity and lipid metabolism; helps purify culture water, increases HDL and reduces cholesterol and triglycerides.

Combination use

Works synergistically with microecological preparations, with better results when used together.

COS / OTHER OLIGOSACCHARIDES

How COS compares.

Item	COS feed additive	Other oligosaccharide feed additives
Chemical nature	Alkaline	Neutral or acidic
Water absorption	Absorbed through the duodenum into the blood	Basically not absorbed by the gastrointestinal tract
Main sites of action	Body fluids, immune organs and immune cells; intestine	Intestine
Activity and functions	1. Adsorptive properties 2. Alkalinity 3. Specificity 4. Reducing properties	Regulation of intestinal microbial balance
Feed inclusion level	20-50 mg/kg	1,000 mg/kg or above

SOURCE REFERENCES

[1] Zhang Chengxi (张成喜). Effects of adding chitooligosaccharides to feed on animals. Contemporary Livestock and Poultry Breeding Industry (当代畜禽养殖业), 2014, 000(012):43-43.

[2] Xu Xiaolong, Zhou Luning, Zhang Bin, et al. Effects of replacing antibiotics with chitooligosaccharides on the growth performance and immune function of broilers. Feed Review (饲料广角), 2016, 000(017):33-37.



FEED-GRADE COS

Specifications & contact.

PRODUCT PROFILE

Test item	Standard specification
Appearance	Light yellow powder
Molecular weight (Da)	≤3,000
COS content (%)	≥85
Moisture (%)	≤10.0
Ash (%)	≤1.0
Water-insoluble matter (%)	≤1.0
pH	5.0-7.0
Arsenic (ppm)	≤0.5

Discuss your application.

Ask for current product specifications and batch documentation for the grade under evaluation.

LET'S CONNECT

Luma Ingredients

WHATSAPP BUSINESS

Scan to start a conversation.

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