



BIVIGRO
Create New Type Feed Additive



EOSPRO®

Nano-Essential Oil

- Treats Intestinal Enteritis
- Develop Intestines to improve nutrition absorption

BIVIGRO ANIMAL HEALTH LIMITED



01 Eospro® Benefits For Layer

EOSPRO can achieve better egg production & Improve egg quality through the unique Eospro functions:

- 01 Improve intestinal development to improve nutrition absorption
- 02 Prevent and treats for enteritis, salpingitis, cloacal infection.



Improve healthy status to improve egg production



Improve nutrition absorption to improve eggshell quality



Treats enteritis & salpingitis to maintain intestines health



Promote recovery from disease or viral infection



Promote blood circulation to transport more nutrition



Usage & Dosage

Improve Egg Quality	
1 Poor egg quality caused by diseases as enteritis & salpingitis	1000ml per 750L to 1000L water, continuously using 5-7 days. Suggested to use every 20-30days to maintain intestines healthy to keep laying performance
2 Poor egg quality caused by sub-health states as decreased immunity	
3 Poor egg quality caused by decline of nutrient absorption	
Enteritis Treatment	
Treatment enteritis caused by E. coli, Salmonella.	1000ml per 750L to 1000L water, continuously using 5-7 days
Notice	<ol style="list-style-type: none"> 1. Finish drinking in a concentrated period within 2-3 hours. 2. When medicine needed, medicine used in morning and EOSPRO used in afternoon. EOSPRO plays synergistic effect with medicine. 3. The application time of EOSPRO can be adjust based on actual situation.

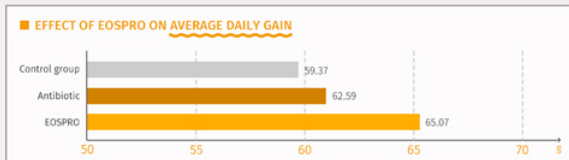
02 Eospro® Benefits For Broiler

EOSPRO can achieve better growth performance & meat quality through the unique Eospro functions:

- 01 Improve intestinal development to improve nutrition absorption
- 02 Prevent and treats for enteritis, cloacal infection.



Feeding Trials Of Eospro



CONCLUSION Compared with the control group, the EOSPRO group increased the average daily gain by **9%**



Promote nutrition absorption to improve growth performance



Antioxidant & anti-inflammatory to improves meat quality



Treats enteritis to maintain intestines health



Prevent coccidia infection to assure nutrition absorption



Improve immunity to antiviral and antidisease



Growth Promotion

First Stage	8-12 days	1000ml per 750L to 1000L water, continuously using 5 days at every stages
Second Stage	19-22 days	
Third Stage	30-34 days	

Enteritis Treatment

Treatment enteritis caused by E. coli, Salmonella.	1000ml per 750L to 1000L water, continuously using 5-7 days
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Notice

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03 Eospro® The Product Features

Natural plant extracted essential oil, with advanced technology to make it into nanometer particle size to dissolved into water to be directly absorbed by poultry intestines



1 Natural plant extraction

EOSPRO derived from natural plants, contains cinnamaldehyde and thymol. It serves as a bioactive substance, promoting poultry performance, improve intestinal development and maintain its health.

Index	
Ingredient	Cinnamaldehyde $\geq 2\%$, Thymol $\geq 0.5\%$
Purpose	Improve Layer Egg Quality & Broiler Growth Promotion
Character	Nano Essential Oil Emulsion, Transparent Yellow Liquid
Dosage	1000ml per 750-1000 Liter water for 5-7 days
Package	1000ml/bottle, 12 bottle/carton

2 Nanometer particle size

EOSPRO processed by liquid phase embedding technology can making the active ingredients highly dispersed and into nanometer particle size, which makes its effective substance can be directly absorbed by small intestine to improve its bioavailability, so that every drop of drinking water can bring excellent antibacterial effect and improve nutrition absorption rate.



1. Dissolve Eospro into water



2. Slightly stirring for two seconds



3. Super dissolved into transparent

Application

EOSPRO is the brand of essential oil specially designed for poultry, it provides significant role in nutrition absorption, immunity, antibacterial to improve production performance, it is safety and high efficiency to be used in the whole poultry breeding period.



EOSPRO should be finished using within 2-3 hours, so farmers need to calculate carefully to give right drink concentrates.

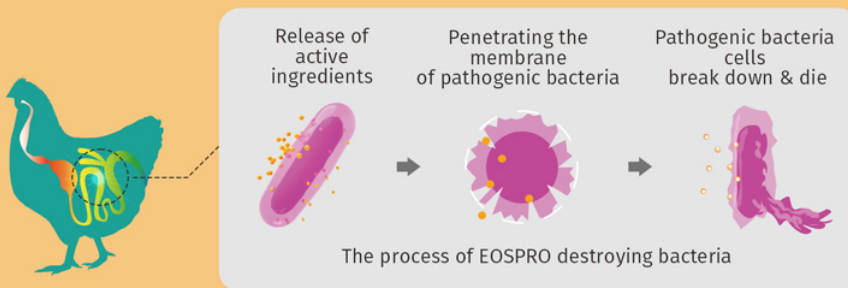
We currently consider 10,000 poultry drinking 2,000 Liter per days, which means every 2 hours, around 166 Liter would be drink, so farmer needs to put 2000 ml EOSPRO separately into 166 Liter or less water for poultry to be finish concentratedly drinking within 2 hours.

04 Eospro® Anti-Pathogens Function

The active ingredients in EOSPRO can effectively kill pathogenic bacteria such as Escherichia coli and Salmonella in intestinal tract, meanwhile, it has significant effects on promoting intestinal development and microecological balance to improve poultry performance.

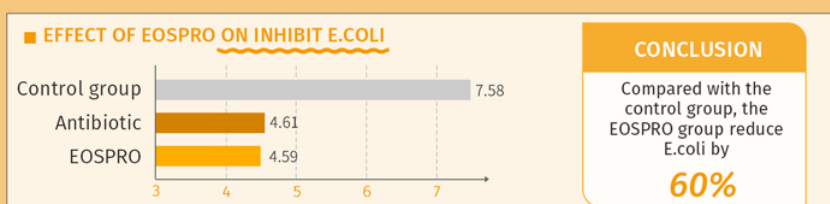
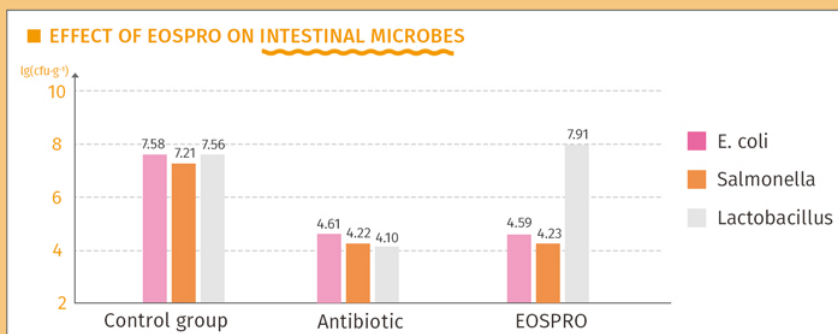
1 Antibacterial Principle

EOSPRO provides strong surface activity and fat solubility, which can quickly penetrate cell membranes of pathogenic microorganisms to change permeability of hydrogen and potassium ions, thereby causing leakage of cell components and loss of water balance to make it death.



2 Anti-Bacterias Ability

EOSPRO provides broad-spectrum and significant inhibitory effect for pathogenic such as Escherichia coli and salmonella etc. but almost no affect on beneficial bacterias like lactobacillus.



Balanced Intestinal Flora

EOSPRO almost no inhibitory effect for beneficial bacteria such as lactic acid bacteria, bifidobacterium longum and bifidobacterium breve etc.

This provide the feature of while inhibiting the pathogenic bacteria, EOSPRO will not cause intestinal flora disorder, still effectively maintain balance of beneficial flora in intestinal.

Treats Enteritis



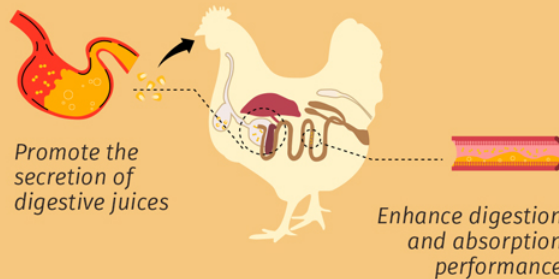
The bacterial enteritis can be treated within 2days by using EOSPRO, the chicken manure will turn to dry. The healthy intestines without enteritis means the nutrition absorption basicly has been assured.

05 Eospro® Improve Digestion Ability

EOSPRO effectively improve intestinal development and its mucosal morphology to improve nutrition absorption ability, accelerates update rate of intestinal epithelial cells, reduce pathogens infections, stimulate secretion of digestive juices, enhance digestion and absorption rate to promote performance.

1 Secret More Enzymes To Enhance Digestion

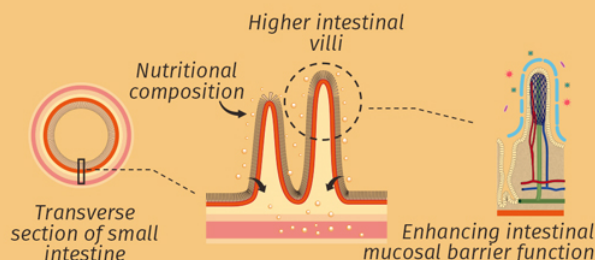
EOSPRO effectively activates digestive enzymes secretion to improve nutrition digestion for growth promotion.



Effect of EOSPRO on digestive enzyme activities			
	Amylase (U·mg ⁻¹ prot.)	Lipase (U·mg ⁻¹ prot.)	Trypsin (U·mg ⁻¹ prot.)
Control group	4.28	342.27	10.15
Antibiotic	4.44	346.54	9.75
EOSPRO	6.53	567.27	12.92

2 Develop Intestines to improve Nutrition Absorption

EOSPRO effectively improves height of intestinal villi to increase nutrient absorption area.



Effect of EOSPRO for development of duodenum			
	Villus height /μm	Crypt depth /μm	Villus height / Crypt depth
Control group	1652.60	274.52	6.02
Antibiotic group	1678.10	264.96	6.33
EOSPRO	1889.22	235.66	8.02

Enhance Digestion

EOSPRO stimulate secretion of digestive juices such as saliva, bile acid, and mucus, improve vitality of digestive enzymes, so as to enhance digestion ability



More feeds intake & more nutrition to be easy absorbed by using EOSPRO.

Intestinal Development

EOSPRO especially improve the height of intestinal villi and promote intestinal length, enlarge the nutrition absorption area, enhance nutrients absorption and utilization.



The poultry intestines will be longer and thicker which effectively improve nutrition absorption after regular use of EOSPRO

07 Eospro® Trial Data For Broiler

EOSPRO has unique growth promoting function which inhibiting intestinal pathogens, reduce content of bacterial metabolites such as toxins and bioamine, maintain the intestinal health and balanced beneficial flora.



Feed Trial Conditions

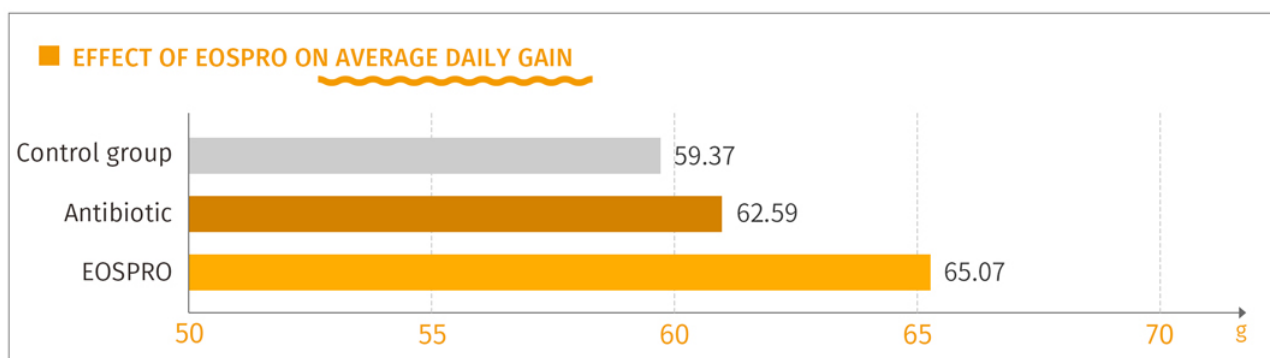
A total of 3600 one-day-old healthy white feather broilers randomly divided into 3 groups with 6 replicates, 200 broilers per replicate, trial last 42days.

In the antibiotic group, 30mg/kg virginiamycin was added and used at the same frequency as EOSPRO.

EOSPRO, used in three stages, first stage from 8 to 12 days, second stage from 19 to 23 days, third stage from 30 to 34 days, every stage continuously using 5days, 1000 ml of EOSPRO adding into 750 liters of water

Trial Feeding Data

Effects of EOSPRO on growth performance				
		Average daily gain (g)	Average daily feed intake (g)	feed gain ratio
1-42 days	Control group	59.37	92.47	1.56
	Antibiotic group	62.59	93.36	1.49
	EOSPRO	65.07	93.85	1.44



CONCLUSION

Compared with the control group, the EOSPRO group increased the average daily gain by **9%**



08 Eospro® Trial Data For Layer

EOSPRO can achieve better egg production ratio & reduce broken eggshell rate through improve intestinal development, prevent and treats for enteritis, salpingitis, cloacal infection.



Feed Trial Conditions

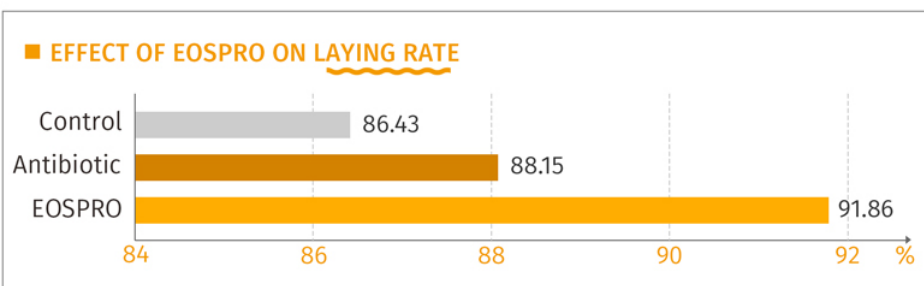
3780 Roman layer 20-week-old randomly divided into 3 treatments with 7 replicates, 180 hens per replicate, the trial from 21 weeks to 35 weeks lasted 105 days.

In the antibiotic group, 30mg/kg virginiamycin was added and used at the same frequency as EOSPRO.

Use EOSPRO every 20 days for 5 consecutive days, dosage is every 1000 ml to 750 liters of water.

Trial Feeding Data

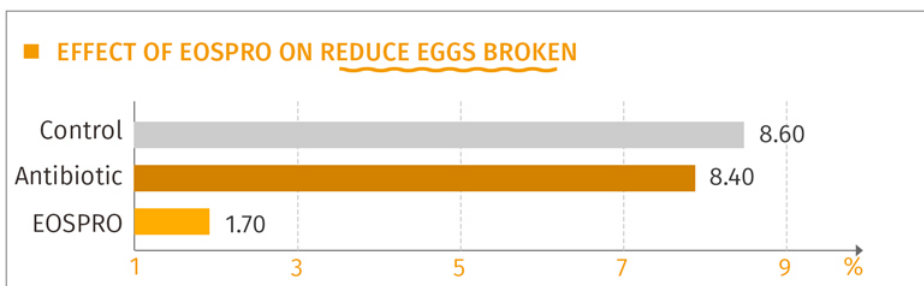
Effect of Eospro for egg production			
	Average egg weight (g)	Average Feed Intake (g)	Feed / Egg
Control group	55.70	122.05	2.54
Antibiotic group	55.96	123.84	2.51
EOSPRO	56.75	123.45	2.37



CONCLUSION

Compared with the control group, the EOSPRO group increased the laying rate by

6%



CONCLUSION

Compared with the control group, the EOSPRO group reduce the egg broken rate by

80.23%

BIVIGRO

Create New Type of Feed Additive

Bivigro® is an innovative technology-based company focusing on research, production and sales of antibiotic substitutes and animal nutritional products, the aim is to offer animal performance solutions, and making your effort to be more efficiency.

Learn more at bivigro-animal-health.com

Questions?

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