



# Gutmyria

( Myristic acid  $\geq$  30% )

## Enteric-release Myristic acid preparation

Anti-bacterial, Anti-coccidial, Anti-diarrheal, Natural performance enhancer

Myristic acid  $\geq$  30%

- ① The broad-spectrum and strongest anti-bacterial MCFA, effective inhibit *Clostridium perfringens*, *E.coli*, *Salmonella*, SD (MIC *C. perfringens* : 1-4 ppm) .
- ② Moderately anti-coccidial effect, ACI=160 ( 100-500g/t ).
- ③ Original enteric-release technology.
- ④ Natural performance enhancer.
- ⑤ Alternative to AGPs.
- ⑥ Generally Recognized as Safe.



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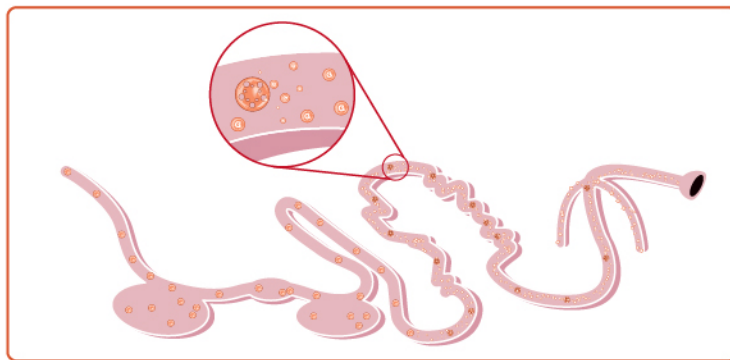
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**Insighter®**  
Solutions Of Gut Problems

## 1. Original enteric-release technology

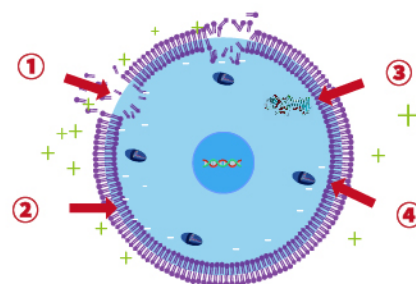
Myristic acid  $\geq 30\%$



Original ion exchange resin technology to ensure myristic acid was released in the posterior part of small intestine.

## 2. Multi-target of antibacterial mechanisms

- ① Destruction of bacterial cell membrane.
- ② Enter the cell and increase the pH pressure inside and outside the bacteria.
- ③ Bacterial lipase inhibitor.
- ④ Uncoupling of the electronic chain of bacterial respiration action and inhibit ATP synthesis .



## 3. Characteristics of Gutmyria

- ① Broad-spectrum antibacterial activity, especially to *Clostridium perfringens* (Table 1).
- ② The strongest antimicrobial Middle chain fatty acid.
- ③ Moderately anti-coccidial effect, Anti-coccidial index  $>160$  ( 100-500g/t ).
- ④ An original enteric-release preparation to maintain effective concentration for pathogens inhibition.
- ⑤ Highly effective against animal diarrhea, watery stools, blood dysentery, ileitis, necrotizing enteritis, etc.

Table 1. Gutmyria on pathogens inhibition

Bacteria species	MIC(ppm)
<i>Clostridium perfringens</i>	1 - 4
<i>E. coli</i>	10 - 20
<i>Salmonella</i>	10 - 30
<i>Campylobacter jejuni</i>	1.2 - 12
<i>Tr. hyodysenteriae</i>	10 - 30

## 4. Customer benefits

- ① Alternative to all AGPs with equivalent mechanism, efficiency and cost.
- ② NO drug resistance, NO residue, NO withdrawal time.
- ③ Widely application for all animals on gut healthy and growth promotion.

## 5. Application effects

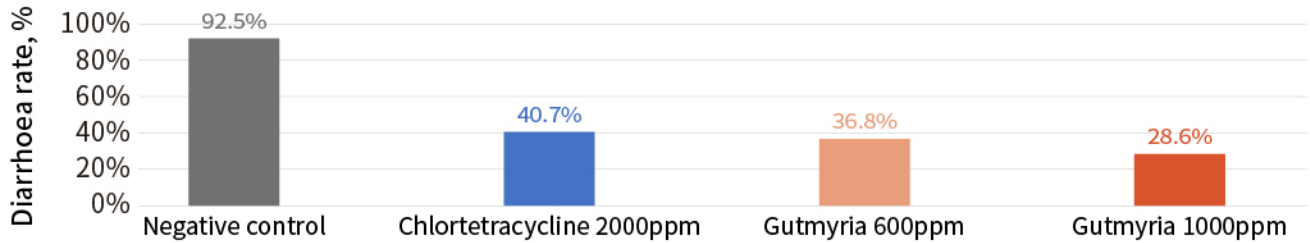


Figure 1. Therapeutic effects of Gutmyria on diarrhea of weaned piglets

Note: Jiangmen Guangdong 2017, 4×25, 7 days.

Table 2. Application effects of Gutmyria on Weaned piglets (USA, 2022)

Items	Treatment			SEM	P-value	
	Negative control (NC)	BMD	Gutmyria (MA)		vs. NC BMD	vs. NC MA
Initial BW,kg	6.6	6.6	6.6	0.3	1.000	0.819
Final BW,kg	19.0	21.3	21.7	0.9	0.046	0.021
ADG,g/d	353	419	431	23	0.043	0.018
ADFI,g/d	515	606	623	31	0.046	0.018
FCR	0.66	0.69	0.69	0.02	0.330	0.315

Note: North Carolina State University, USA, May 20<sup>th</sup> 2022 to Jun 25<sup>th</sup> 2022.

21 day-old piglets, 3 groups×12 replicates×1 pig for 35 days trail.

Negative control: corn soybean meal diet (NRC, 2012). BMD group: 250ppm bacitracin methylene disalicylate (BMD). Gutmyria group: 2000ppm (day 0-20) and 1200ppm (day 21-35).

P<0.05 means significant differences.

Table 3. Effects of Gutmyria on growth performance of Ross 308 broilers (Canada, 2022)

Items	Treatment			SEM	P-value
	Negative control	Antibiotic	Gutmyria		
ADG,g	70.89	72.42	71.95	0.389	0.637
ADFI, g	112.57	112.07	112.63	0.636	0.992
FCR	1.588 <sup>a</sup>	1.548 <sup>b</sup>	1.566 <sup>ab</sup>	0.005	0.019
Mortality, %	7.292	6.771	5.208	0.905	0.951

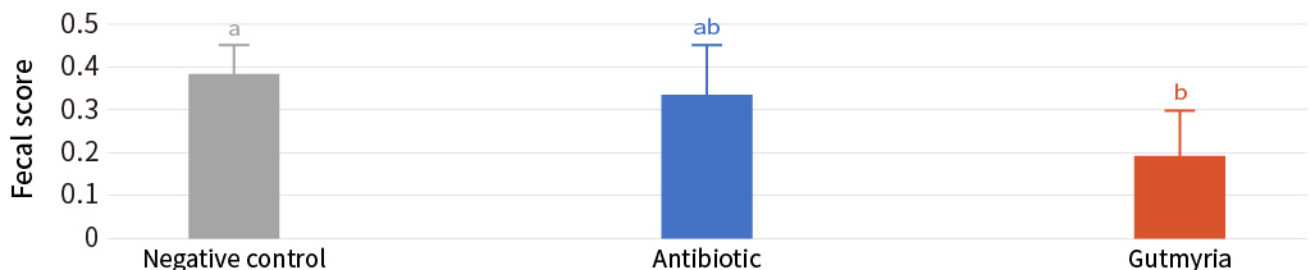


Figure 2. Effects of Gutmyria on fecal scores of Ross 308 broilers

Note: University of Manitoba, Canada, Dec 1<sup>st</sup> to Jan 11<sup>th</sup> 2021.

3 groups×6 replicates×32 Ross 308 broilers were reared on floors.

Antibiotic group: Avilamycin 50ppm added. Gutmyria group: 500ppm (1-14 days old), 400ppm (15-28 days old), 300ppm (29-42 days old).

P<0.05 means significant differences.

**Table 4. Effects of feed additives on performance in LSL lite hens from 21 to 31 weeks of age**

Item	Negative control	BMD	Gutmyria
Laying rate, %	95.4 <sup>b</sup>	96.7 <sup>a</sup>	97.6 <sup>a</sup>
Feed intake, g/d	102.5 <sup>b</sup>	106.1 <sup>a</sup>	106.9 <sup>a</sup>
Egg weight, g	57.3 <sup>c</sup>	58.8 <sup>a</sup>	58.1 <sup>b</sup>
FCR, g/g	1.878	1.865	1.883

Note: University of Guelph, October 2022 -January 2023. 18-week-old of Lohmann LSL-lite, 10 weeks trail  
Control: corn soybean meal diet (NRC1994); BMD: control + 110g/metric ton of BMD; Gutmyria: control+300g/ton of Gutmyria.  
Different superscript in the same row means significant differences ( $P<0.05$ ).

**Table 5. Effects of Gutmyria on growth performance of Cherry Valley Meat Duck (*Jiangsu*, 2022)**

Items	Negative control	Antibiotic	Gutmyria
Final BW,kg	4.01±0.02 <sup>c</sup>	4.13±0.02 <sup>b</sup>	4.15±0.03 <sup>b</sup>
ADFI,g	171.66±1.15 <sup>ab</sup>	173.64±1.30 <sup>a</sup>	170.60±2.31 <sup>abc</sup>
ADG,g	96.67±0.56 <sup>c</sup>	99.56±0.60 <sup>b</sup>	100.05±0.65 <sup>b</sup>
FCR	1.82±0.02 <sup>a</sup>	1.77±0.01 <sup>b</sup>	1.74±0.02 <sup>bc</sup>
Mortality, %	96.21±2.17	98.48±0.96	98.48±0.96

Note:Jiangsu Academy of Agricultural Sciences, Dec 1<sup>st</sup> 2021 to Jan 11<sup>th</sup> 2022.  
3 groups×6 replicates×22 ducks reared for 42 days .  
Control:commercial feed; Antibiotic: control + 50ppm chlortetracycline; Gutmyria:control +400ppm (1-21days) or 200ppm (22-42days) Gutmyria.  
 $P<0.05$  means significant differences.

**Table 6. Anti-coccidial Index (ACI) comparison of Gutmyria and Monensin**

Items	Positive control	Negativecontrol	Monensin	Gutmyria-200	Gutmyria-300
Survival rate (%)	100	100	100	100	100
Relative weight gain (%)	69.14	100.00	63.13	76.20	76.88
Lesion value	27.5	0	25.5	27.5	25.5
Oocyst value	40	0	1	20	10
Anti-coccidial Index	101.54	200	136.63	128.70	141.38

Note: School of Veterinary Medicine, Yangzhou University.  
Fifty 20-day-old chickens with similar weights were divided into 5 groups. *Eimeria tenella* was infected with approximately  $8.5 \times 10^4$  sporulated oocysts via the crop at 22 days of age. The experiment concluded on the 8th day post-infection (30 days of age).  
ACI was calculated following Merck's method:  $ACI = (\text{Survival rate} + \text{Relative weight gain}) - (\text{Lesion score} + \text{Oocyst value})$ .  
 $ACI > 180$  were considered highly effective,  $160 < ACI < 180$  were considered moderately effective,  $120 < ACI < 160$  were considered low effective.

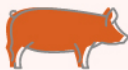





**Table 7. Anti-coccidial Index (ACI) comparison of Gutmyria and Maduramicin**

Items	Positive control	Negativecontrol	Monensin	Gutmyria-300	Gutmyria-500
Survival rate (%)	100	100	100	100	100
Relative weight gain (%)	74.30	100.00	80.15	91.37	92.01
Lesion value	27	0	25	26.5	19.5
Oocyst value	40	0	20	20	10
Anti-coccidial Index	107.3	200	135.15	144.87	162.51

Note: The trail implementation university and the trail design are the same as above.

## 6. Recommended dosage

Species	Stage	Dosage (g/t)	Species	Stage	Dosage (g/t)
 Swine	Weaning piglet	500 - 1,500	 Chicken	Starter	200 - 500
	Nursery	500 - 1,200		Grower	200 - 400
	Grower	300 - 500		Finisher	100 - 300
	Finisher	200 - 300		Layer	100 - 200
 Ruminant (Replace CTC, Monensin )	Calf	500 - 1,000	 Duck	Breeder	100 - 1,000
	Lamb	500 - 1,000		Meat duck	100 - 200
	Fattening	1,000 - 2,000		Layer	100 - 200
	Lactating	1,000 - 2,000	Breeder	100 - 1,000	

Note: this dosage is recommend for complete replace all AGPs .



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