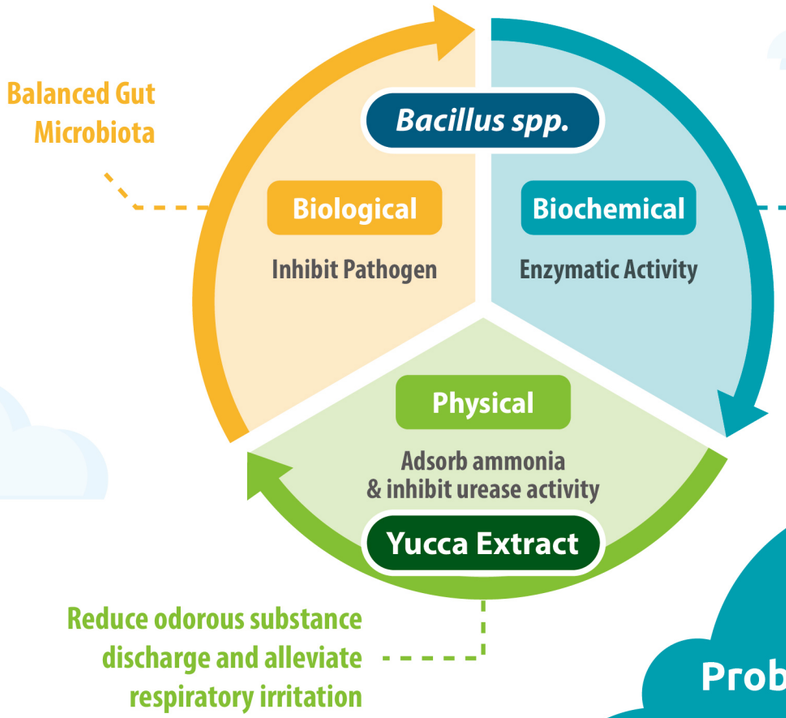
Mode of Action



3-in-1 Probiotic Formula!

Three-way approaches of biological, biochemical and physical action to assist with farm odor problems and improve animal health.

YungClean®

3-in-1 Probiotic Formula

YungClean®

COMPOSITION	*Bacillus spp.* >10^9 CFU/g, Yucca extract
DOSAGE	1-1.5 kg per ton of feed (Dosages are adjustable according to practical condition)
DOSAGE FORM	Powder

Odor control & gut health solutions

- **Improve Protein Digestibility**
- **Inhibit Pathogens**
- **Reduce Odor Discharge**

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YungClean® Scientific-Based Formula

YungClean® *Bacillus spp.*

Producing AMPs (Antimicrobial Peptides)

- Inhibit the growth of pathogen and putrefactive microorganisms in the intestine
- Competitive exclusion of pathogen in gastrointestinal system

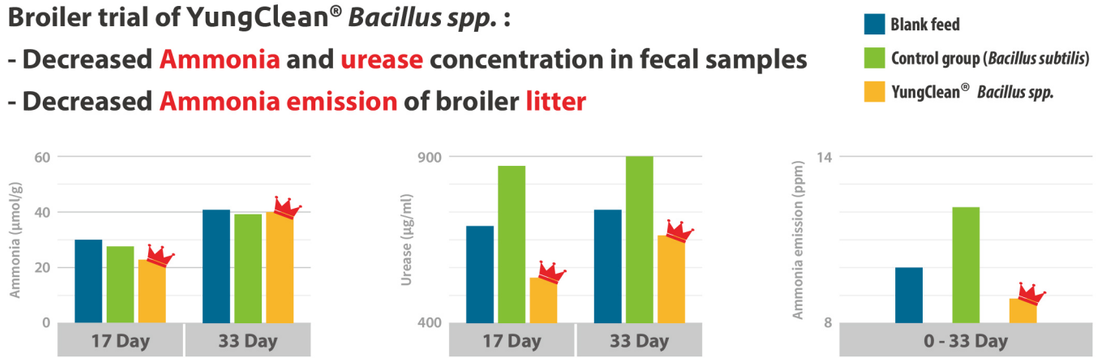
Producing Multi-Enzymes

- Improve protein digestibility effectively to reduce discharge of odorous factors and leftovers
- Decompose anti-nutritional factors to reduce intestinal irritation

Broiler trial of YungClean® *Bacillus spp.* :

- Decreased Ammonia and urease concentration in fecal samples

- Decreased Ammonia emission of broiler litter

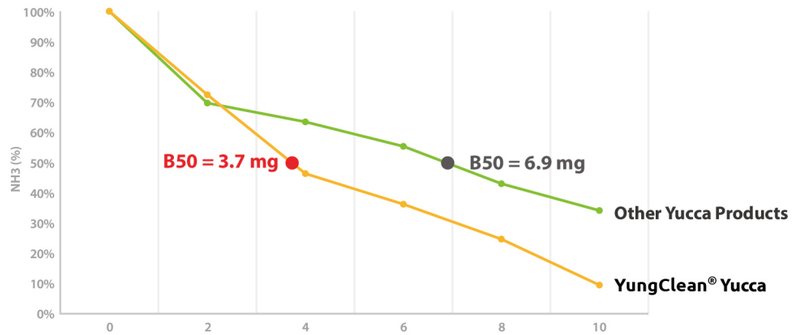


Trial result showed YungClean® *Bacillus spp*. effectively reduce the concentration of ammonia and urease in both feces and litter.

YungClean® Yucca extract

- With high saponin content for inhibiting urease activity and reducing ammonia continuously generated from intestine and feces.
- Containing glycosides with special protein structure that can adsorb ammonia discharge from guts.
- Polyphenol and alcohol substances with antioxidant feature to help alleviate inflammation and improve intestine health.

Screening high quality Yucca using B50 Method



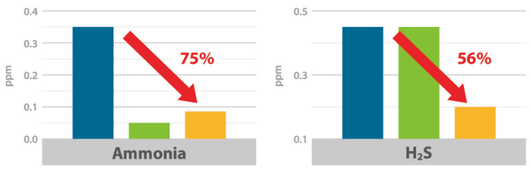
The B50 value indicates the milligrams of a Yucca extract necessary to reduce 50% of ammonia in aqueous solution. The lower the value, the better the quality!

In Vitro Study

Trial Design

Blank feed | Control group (*Bacillus subtilis*) | YungClean® *Bacillus spp.*

1. Collect 200g swine facal samples.
2. Knead the facal samples throughly, add YungClean® into the samples.
3. Stand for 30 minutes in room temperature.
4. Measure the concentration of ammonia and H_2S in facal samples.

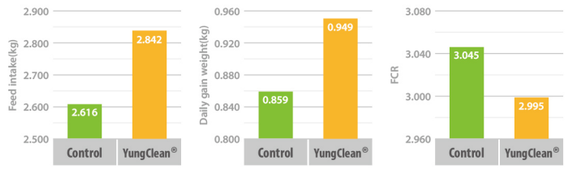


Swine Growth Performance

Trial Design

April - May/2018 (Spring)

1. Trial started from 60kg BW, end with 110kg BW (10 weeks in total).
2. Weight and feed intake were measured every 4 weeks and in the end of trial.
3. YungClean® application : 1kg/ton of feed.



YungClean®

***increased 8.6% of feed intake**
***increased 10.5% of daily weight gain**
***improved 1.6% on FCR**

Deodorization Effect

Trial Design

- Conducted by Agricultural Technology Research Institute (2019)
- YungClean® application : 1 kg/ton of feed

YungClean® was applied in the last month before slaughtering, swine fecal samples was collected at the 2nd and 4th week, and concentration of ammonia and H_2S in facal samples were measured.

Faecal odor (ppm)		Control	YungClean® 0.1%
Ammonia	2nd week	0.10	0.05
	4th week	0.10	n/a
H_2S	2nd week	104.49	51.35
	4th week	55.77	28.18

***After supplementing with YungClean® for 2 weeks, ammonia and H_2S in feces decreased significantly!!**

Deodorization Effect in feces and environment

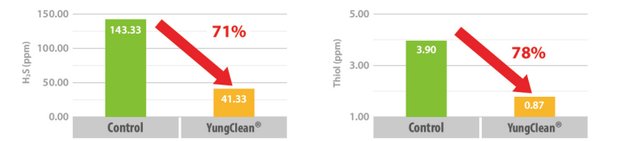
Trial Design

April - May 2020

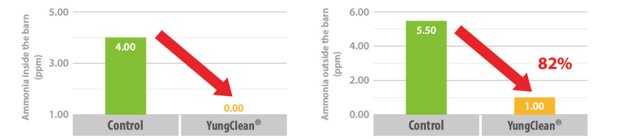
- Conducted by a commercial swine farm in Yunlin Taiwan
- YungClean® application : 1 kg/ton of feed

YungClean® was applied at nursery and fattening stage.
Concentration of H_2S and ammonia in feces and barns were measured 4 weeks after application.

Deodorization Effect in feces

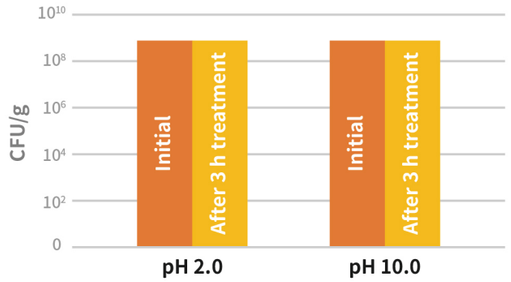


Deodorization Effect in environment



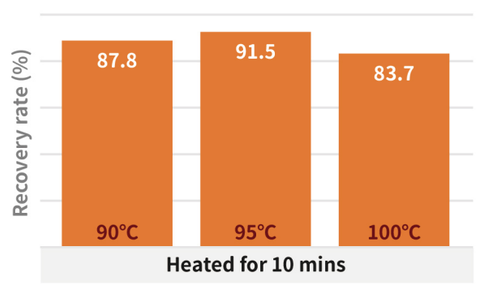
Great Environmental Tolerance of YungStrong

pH Tolerance



YungStrong can pass through the harsh acidic gastric environment into intestine.

Heat Tolerance



YungStrong is a highly heat-stable strain that could remain viable through the pelleting process.

YungStrong Profile	Benefits
Wild strain isolated from the soil	Safety strain for animal use. (QPS and GRAS listed)
Survive from 100°C, 10 mins heating	Stable in pelleted feed result in feeding consistently.
Wide pH range tolerance	Acid and bile resistance make it possible to reach the small intestine and colonize in the host.
Produce antimicrobial peptides	Keep gut health by decreasing the pathogen populations to balance the intestinal microflora. Reduce feeding-to-slaughter days by improving growth performance to optimize profit.
Generate multi-enzymes	
High quality product	FAMI-QS certified fermentation process (pure culture methods) ensures the qualified product providing.

YungStrong

COMPOSITION	*Bacillus amyloliquenfaciens* Ba-BPD1 > 10^9 CFU/g
PACKAGE	1 kg/bag ; 25 kg/bag
DOSAGE	0.5-1 kg per ton of feed

FAMI QS

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YungStrong

For poultry, swine and aquaculture

Your best choice for AGPs replacement

YungStrong

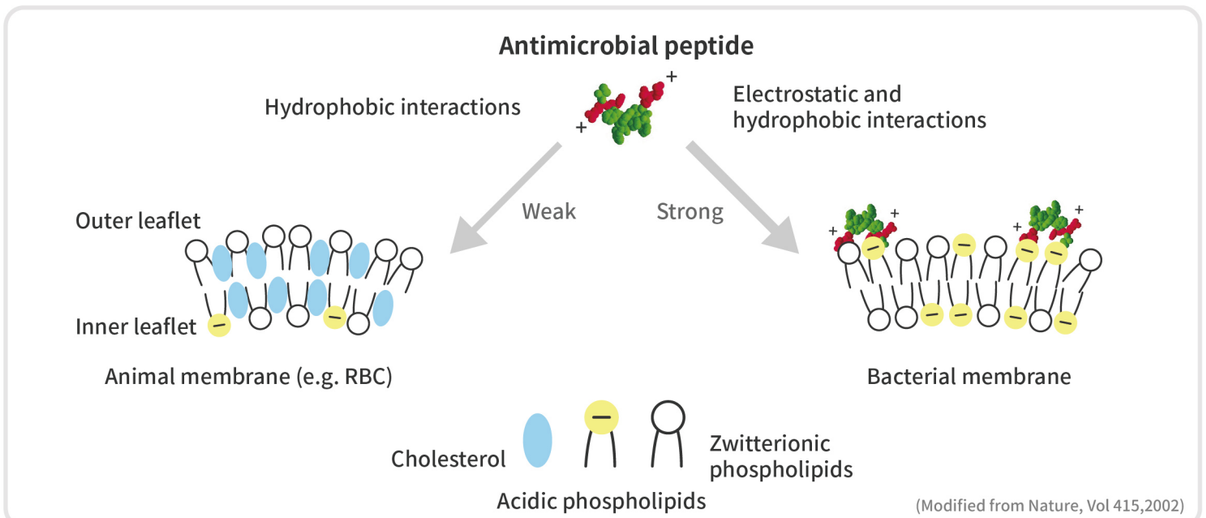
Gut Guardian

YungStrong is a feed additive containing patented strain ***Bacillus amyloliquenfaciens*** Ba-BPD1, wild strain that was selected specifically from the soil in Lishan, Taichung, Taiwan for its wide pH range stability, thermostability, ability to secrete multi-enzymes and various antimicrobial peptides (AMPs).

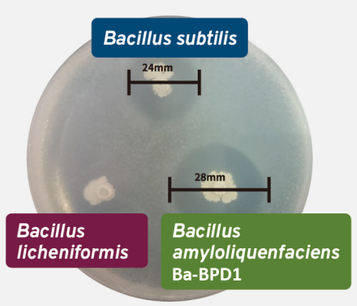
Patent No. in Taiwan, I 373523
Patent No. in China, ZL 1 0182428.7

AMPs Producer - Iturin, Surfactin, Fengycin

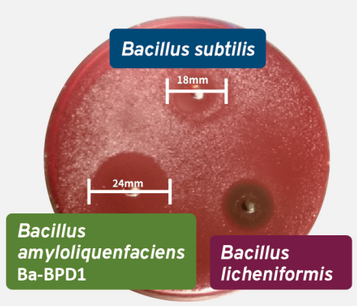
- **YungStrong** establishes and maintains a beneficial microbial population in the gut by producing various AMPs to destroy pathogens.
- AMPs are cationic and amphipathic lipopeptides, which interacting with bacterial membranes to exert direct antimicrobial activity.



Bacteriostatic Effect



Salmonella spp.



Clostridium spp.

Efficacy of YungStrong

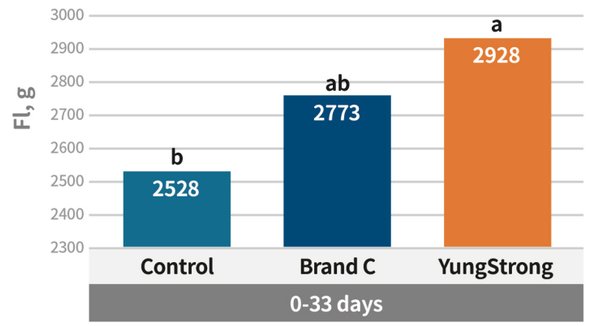
Clinical Trial

- **YungStrong** improves profitability through boosting growth performance and reducing feeding-to-slaughter days.

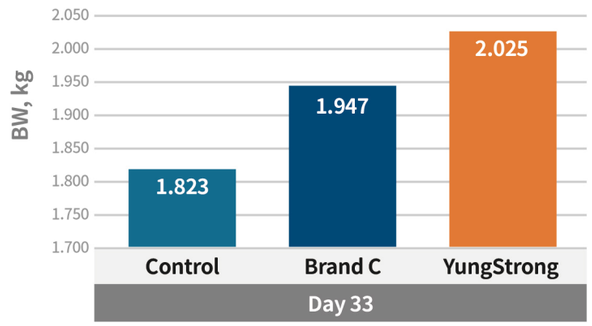
300 ROSS broilers (Taiwan, 2018)
Dosage : 10^6 CFU/g of feed in both Brand C and YungStrong group
Treatment :
- Control
- Brand C : commercial *B. subtilis* strain
- YungStrong : *B. amyloliquenfaciens* Ba-BPD1

(Independent conducted by academic institute in Taiwan)

Effect on Feed Consumption



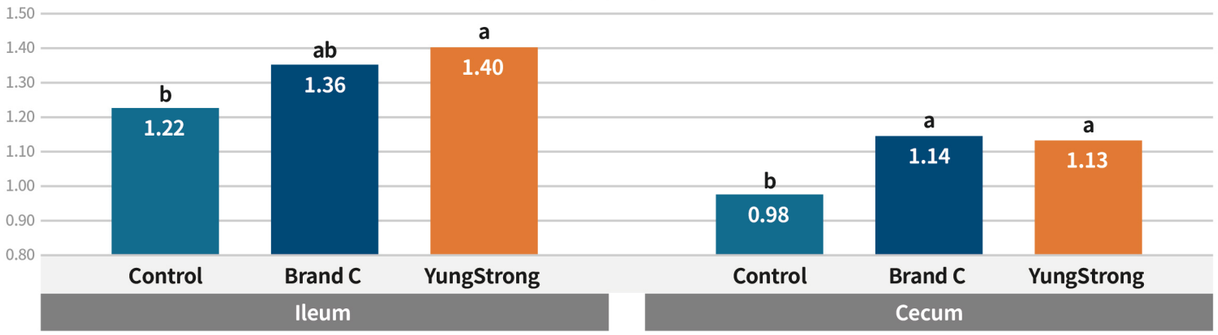
Response on Body Weight



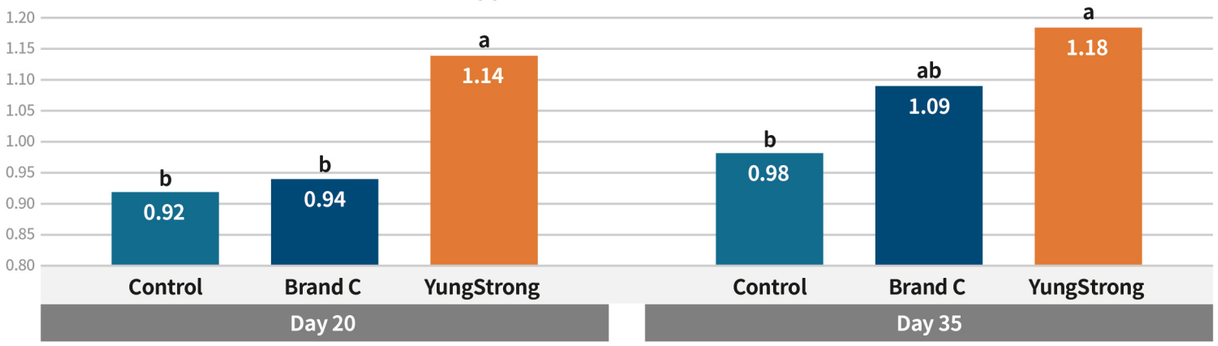
Balance GIT Microflora

- **YungStrong** produces AMPs in the GIT that has inhibitory activity against pathogens and balance the microflora by competitive exclusion.

***Lactobacillus spp.* / *C. perfringens* index in intestine**



***Lactobacillus spp.* / Coliform bacteria index in feces**



MYCOFRESH

ALWAYS KEEP THE FEED FRESH AND CLEAN

- Broad-spectrum biological detoxification of mycotoxins
- Effective prevention for multiple mycotoxin risks
- Less oxidative stress for better health condition

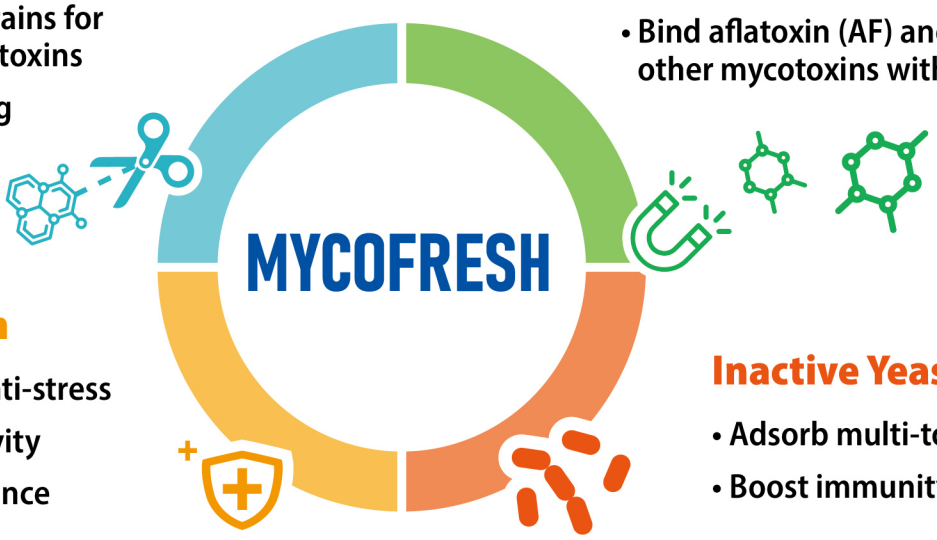
Vetnostrum

Mycotoxin deactivate probiotics

- Selected *Bacillus* strains for decomposing mycotoxins
- Effectively removing ZEN & FUM

HSCAS

- Bind aflatoxin (AF) and other mycotoxins with polarity



Organic selenium

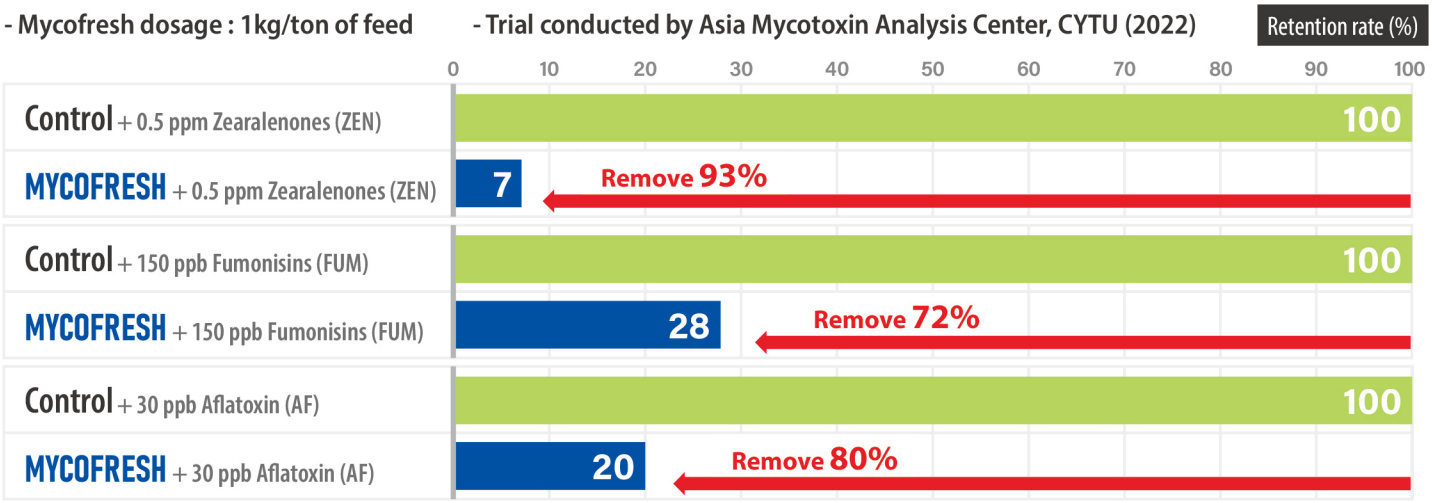
- Anti-oxidaton and anti-stress
- Optimize reproductivity
- Better disease resistance

Inactive Yeast

- Adsorb multi-toxins
- Boost immunity

Mycotoxin removal capacity of MYCOFRESH

- Mycofresh dosage : 1kg/ton of feed
- Trial conducted by Asia Mycotoxin Analysis Center, CYTU (2022)



MYCOFRESH

25kg/ Bag

Active ingredients	*Bacillus spp.* , Aluminum silicate (HSCAS) , Organic selenium , Inactive yeasts	
Application	Poultry, swine and ruminants	
Recommended dosage	Swine	Poultry and others
	Gestation sows : 0.5-1kg/ton of feed	Breeders : 0.5-1kg/ton of feed
	Lactation sows : 1-2kg/ton of feed	Broilers : 0.5-1kg/ton of feed
	Weaning piglets : 0.5-1kg/ton of feed	Layers : 0.5-1kg/ton of feed
	Growing/finishing pig : 0.5-1kg/ton of feed	Ruminants : 15-30g/head
	Dosage is adjustable according to contamination condition of feed or symptoms	

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AQUAFLOC PLUS

PROBIOTIC KEYS TO MAXIMIZE SURVIVAL RATE

- Pathogen-controlling probiotic combination for aquatic animals.
- Water quality improvement : Control pH, ORP, ammonia, algae ecology, and overall water condition.
- Healthier animals capable of combating diseases with better immunity.
- Decrease mortality and increase survival rate. Better production rate, better profit!

Vetnostrum

PATHOGEN INHIBITION CAPACITY OF AQUAFLOC PLUS

This *in vitro* trial was conducted by Department and Graduate Institute of Aquaculture, NKUST

The effective range of inhibitory zone diameter is >10 (mm).

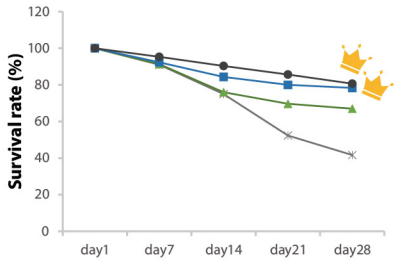
Pathogen species	Inhibitory zone diameter (mm)
Vibrio vulnificus	20 ± 2
Vibrio alginolyticus 15	27 ± 2
Vibrio Harveyi 37	18 ± 1
Streptococcus agalactiae	17 ± 2
Aeromonas hydrophila	16 ± 4

APPLICATION OF AQUAFLOC PLUS ENHANCES DISEASE RESISTANCE AND INCREASES SURVIVAL RATE IN AQUATIC ANIMALS!

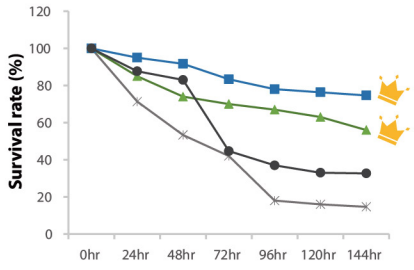
- Trial animal species : *Litopenaeus vannamei*, starting weight of 10-20g. Total of 1,600 shrimps.
- Trial method : 1,600 shrimps divided into 4 groups (400 shrimps per group).
  The shrimps were challenged with *Vibrio vulnificus* and *Vibrio harveyi 37* after feeding with different meals for 30 days. Survival rate was recorded before and after challenges.

Control — Feed with antibiotics — B1 Aquafloc Plus 1kg/ton of feed — B2 Aquafloc Plus 2kg/ton of feed

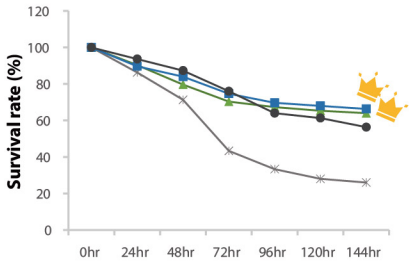
Before challenges
(30 days after feeding with treatments)



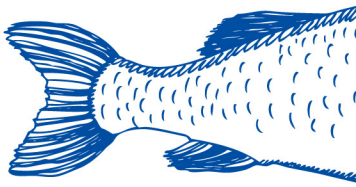
Post-infection with *Vibrio vulnificus* challenge



Post-infection with *Vibrio harveyi 37* challenge



Aquafloc Plus promotes the survival rate up to 50% even with disease challenges!!



AQUAFLOC PLUS

INGREDIENT	*Bacillus spp.*	**PACKAGE**	1kg/bag

APPLICATION/ DOSAGE

1. In-feed dosage : 0.5-2kg/ ton of feed
   (dosage adjustable according to feed categories).
2. In-water dosage :
   (1) Weekly maintenance suggestion : 1kg/ 5,000 cubic meter of water.
   (2) Water quality deterioration suggestion: 2kg/ 5,000 cubic meter of water.
   - To control water quality deterioration, apply every 3 days, and check conditions on the 9th day.
   - If water quality deterioration continues, keep using it for 9 more days.
   - If water quality stabilizes, turn to weekly maintenance application.

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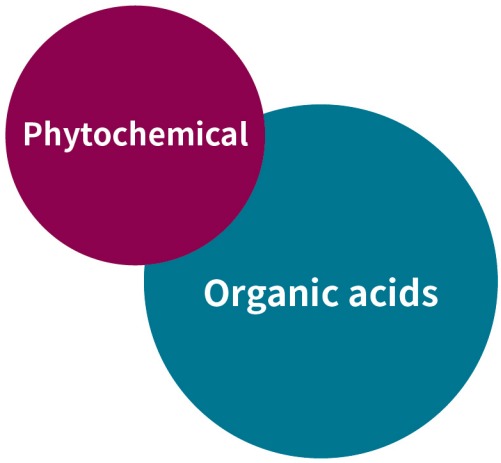
Acidofac AP

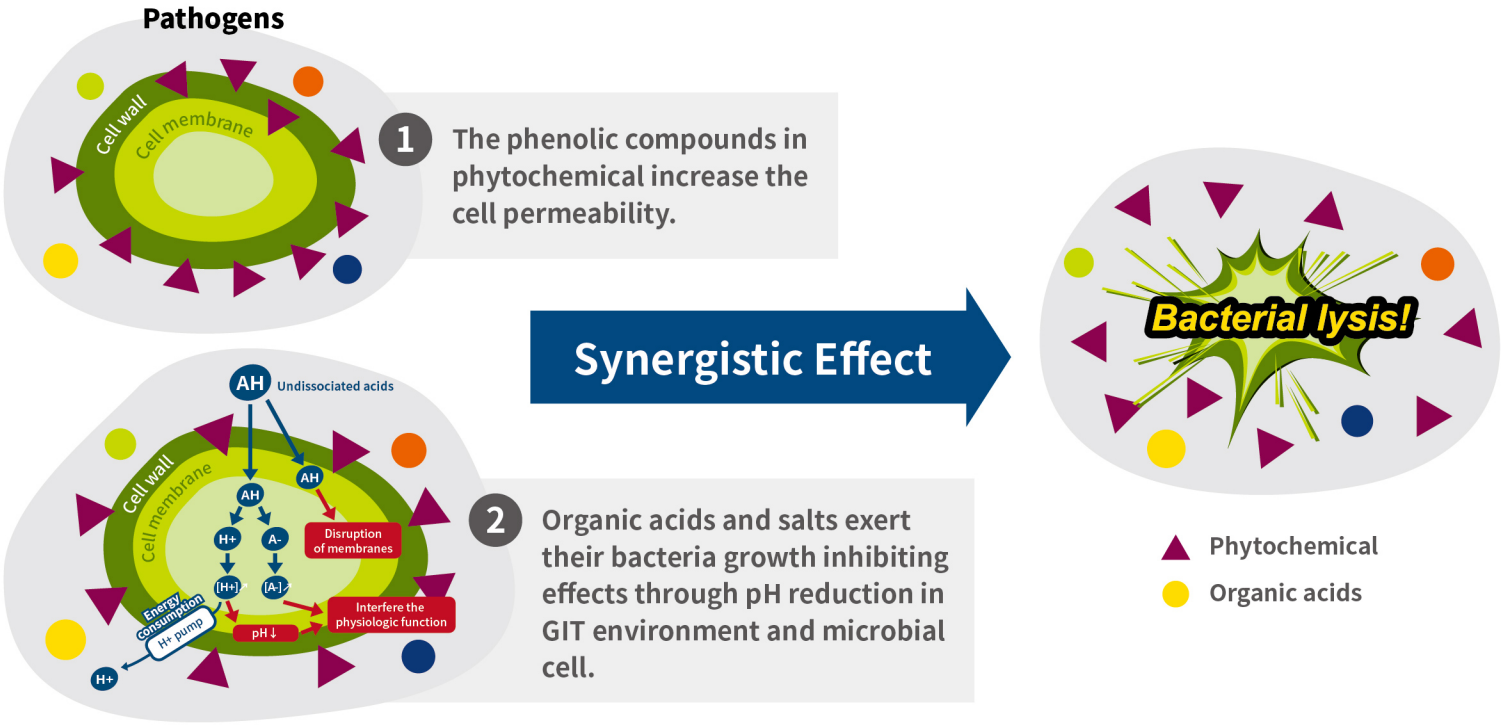
Synergistic Combo

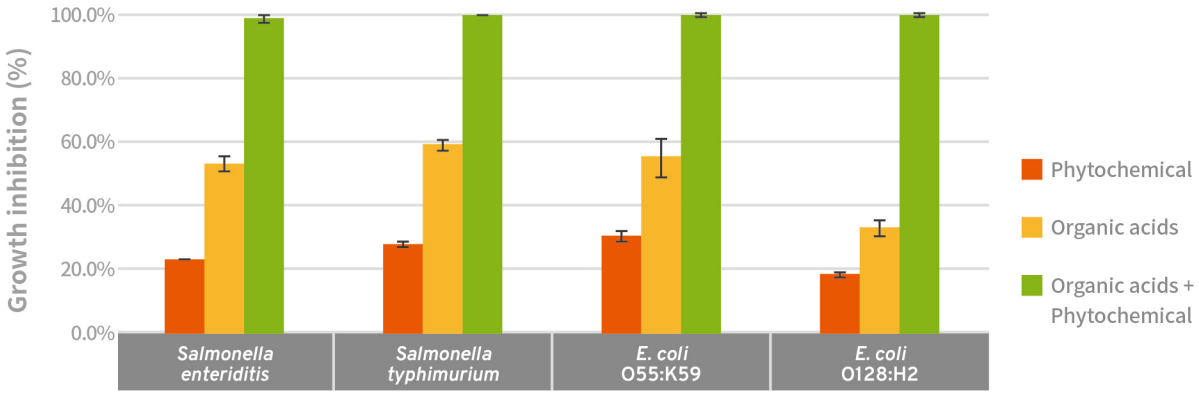


Vetostrum

Acidofac AP

Organic acids + Phytochemical = Outstanding antibacterial ability





(Riemensperger *et al.*, 2012)

Acidofac AP is an environmental friendly and antibiotic-free solution to optimize small intestine surface area condition and reduce diarrhea problems.

Your cost-effective choice of feed supplement, Acidofac AP!

Dosage
1-2 kg per ton of feed

Package
25 kg/bag

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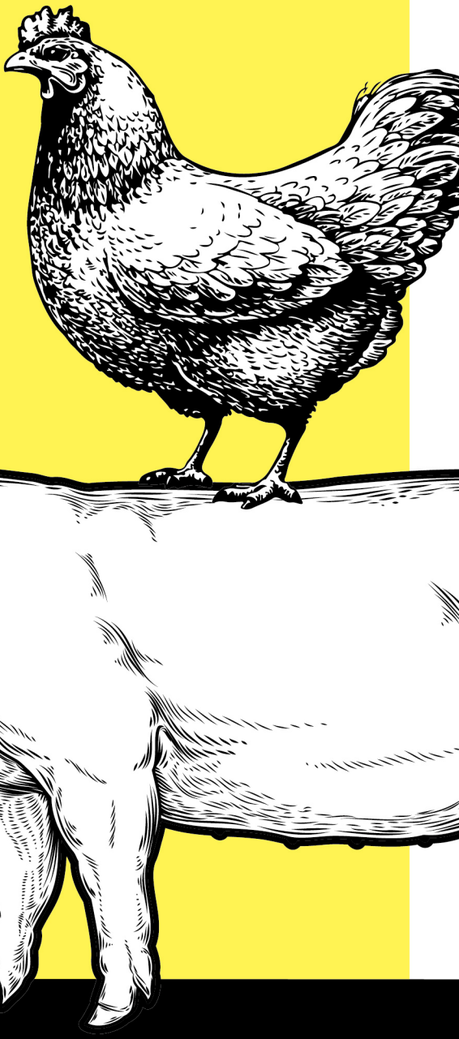
Traditional Wisdom, Modern Husbandry Solutions

Eco-friendly Phytogenic Additives
Better breathe, Better health



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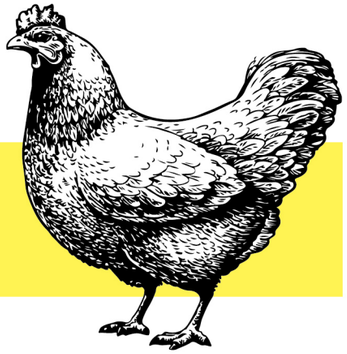
Rezyfresh

Support healthy breathing and clear airways



Isatidis Radix

Glycyrrhiza uralensis

- *Inhibit virus proliferation*
- *Eliminate endotoxin*
- *Anti-bacterium*
- *Anti-stress*
- *Expectorant and Anti-spasmodic*

- Zhou and Zhang, 2013
- Irani et al., 2010
- Parvaiz et al., 2014

Treatment For Chronic Respiratory Disease

Broiler flocks are naturally infected with IBV at 6 day-old

Farm	Group	No. of Sick chicken	No. of death	Fatality rate
I	Control	584	159	27.23%
	Rezyfresh	650	19	2.92% ↓
II	Control	756	181	23.94%
	Rezyfresh	850	26	3.06% ↓

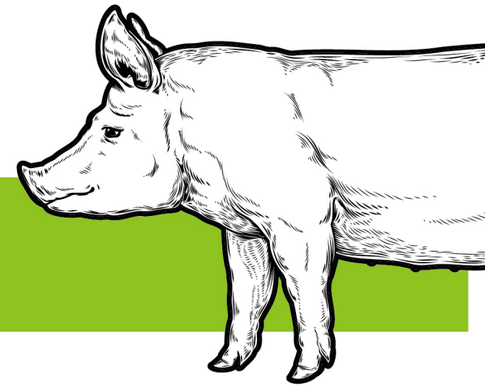
Rezyfresh provides the polysaccharides and glycyrrhizic acid extracted from natural plants which strengthens immunity, relieves respiratory syndrome and supports animal performance.

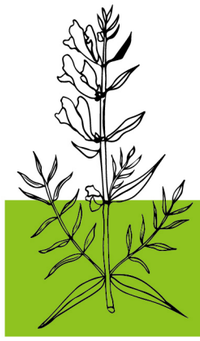
Rezyfresh

COMPOSITION	***Isatidis Radix*、*Glycyrrhiza uralensis***
PACKAGE	**1 L /bottle**
DOSAGE	**0.5-1L per ton of drinking water**

Meatafac

Making breathe easier and smoother





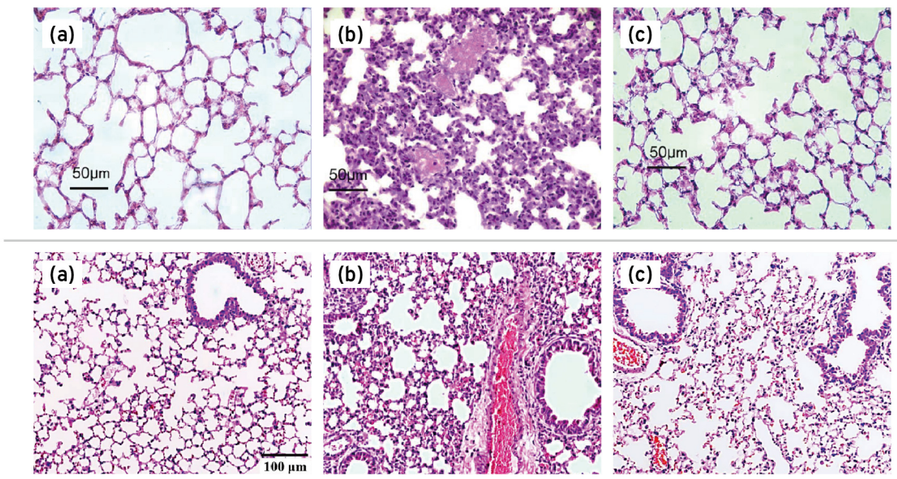
Flos Lonicerae Japonicae

Radix Scutellariae

- *Anti-bacterium*
- *Antivirus*
- *Antioxidant*
- *Anti-inflammatory*

- Guo et al., 2007
- Li et al., 2000

Protects Lung From Injury



(a) control
(b) LPS challenge
(c) LPS challenge
+ 50 mg/kg Chlorogenic acid

(a) control
(b) RSV infection
(c) RSV infection
+ 100 mg/kg Baicalin

- Zhang et al., 2010
- Shi et al., 2016

Meatafac is composed of quantified chlorogenic acid and baicalin from the qualified herbal *Flos Lonicerae Japonicae* and *Radix Scutellariae* to support proper function of respiratory tract. The healthy respiratory tract ensures enough oxygen supply, which leads to proper feed intake and undisturbed growth performance.

Meatafac

COMPOSITION	***Flos Lonicerae Japonicae*、*Radix Scutellariae***
PACKAGE	**25 kg /bag**
DOSAGE	**0.5-1 kg per ton of feed**