



Fisugarpeptide Biology Engineering Co., Ltd

Nutrimilk Product Presentation



Hantech Biology - Leader of Biological Feed





Glucose



Citric Acid Monohydrate

Decoloration



vitamins

Ion exchange

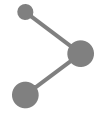


minerals



Industrial Wastewater

Does the feed industry need to do like this?



Why Predigestion?

Five Purposes

- ✓ Lighten the burden of digestion
- ✓ Lower anti-nutritional factors
- ✓ Improve digestive efficiency
- ✓ Provide stress nutrition
- ✓ Improve palatability



A New Generation of Predigestion Technology of Raw Materials

4 Major Series - 5 kinds of Featured Products:

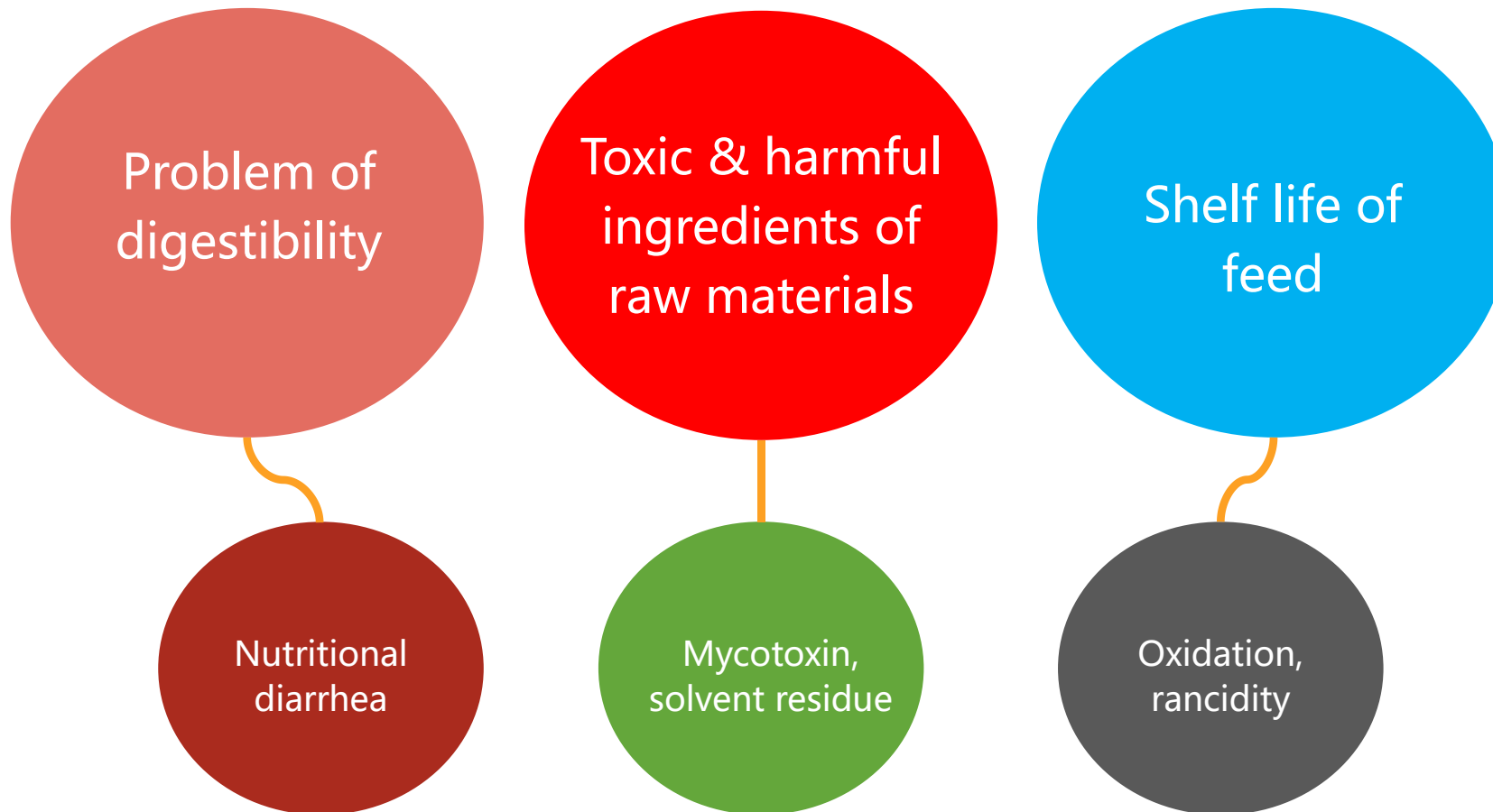
- Emulsified fermented feed
- Acidified fermented feed
- Extruded fermented feed
- Diastatic fermented feed

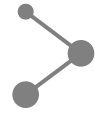


Main Products



Major confusions in the feed and breeding industry





Nutrimilk

Instant Milky High-Protein Emulsified Fat Powder

- ✓ Coating agents: baked & fermented protein and compound polysaccharide
- ✓ Artificial coffee mate/chocolate + antigen-free peptide/soluble protein + artificial honey



Fat+Sugar+Protein



➤ Providing a perfect balance of nutrition



How is Nutrimilk effective in performance?

✓ Micro-emulsified Fat, well coated

Vegetable oil homogenized and emulsified into nano-fat (5nm), rich in emulsified fat, medium-chain fatty acid, with a long shelf life and high digestive energy.



✓ Easily digestible polypeptides are quick to absorb

Protein baked and fermented into antigen free polypeptide & soluble protein, easy to digest and absorb. Piglets, calves and lambs grow fast without ailment.





Main Products

How is Nutrimilk effective in performance?

✓ Polysaccharified Starch, abundant active nutrients, fast absorption rate

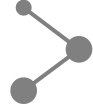
Starch fermented into polysaccharides & acids, nutrient-rich, fast energy supply, balanced nutrition, nutrients are fast and easy to absorb. Breeding females can quickly recover after delivering with little to no loss of weight.



✓ Eliminate heaty fever, remove toxins & chemical residues

Product is designed to reduce inflammation and other complications, including fever, tear spots and dry skin in the delivery process.





Features

1. Appearance

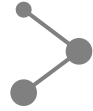


Milky & cream white, no oil trace on surface.

2. Smell



Fermented milk and bean, strong scent of butter.



Features

3. Taste

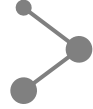


Melts in the mouth without residue, sweet like honey.

4. Solubility



Rapidly and completely soluble in water, no nutrient precipitation, no oil-water separation.



Features

5. Iodine test



An iodine test in aqueous solution does not show blue, showing that the starch has degraded completely.

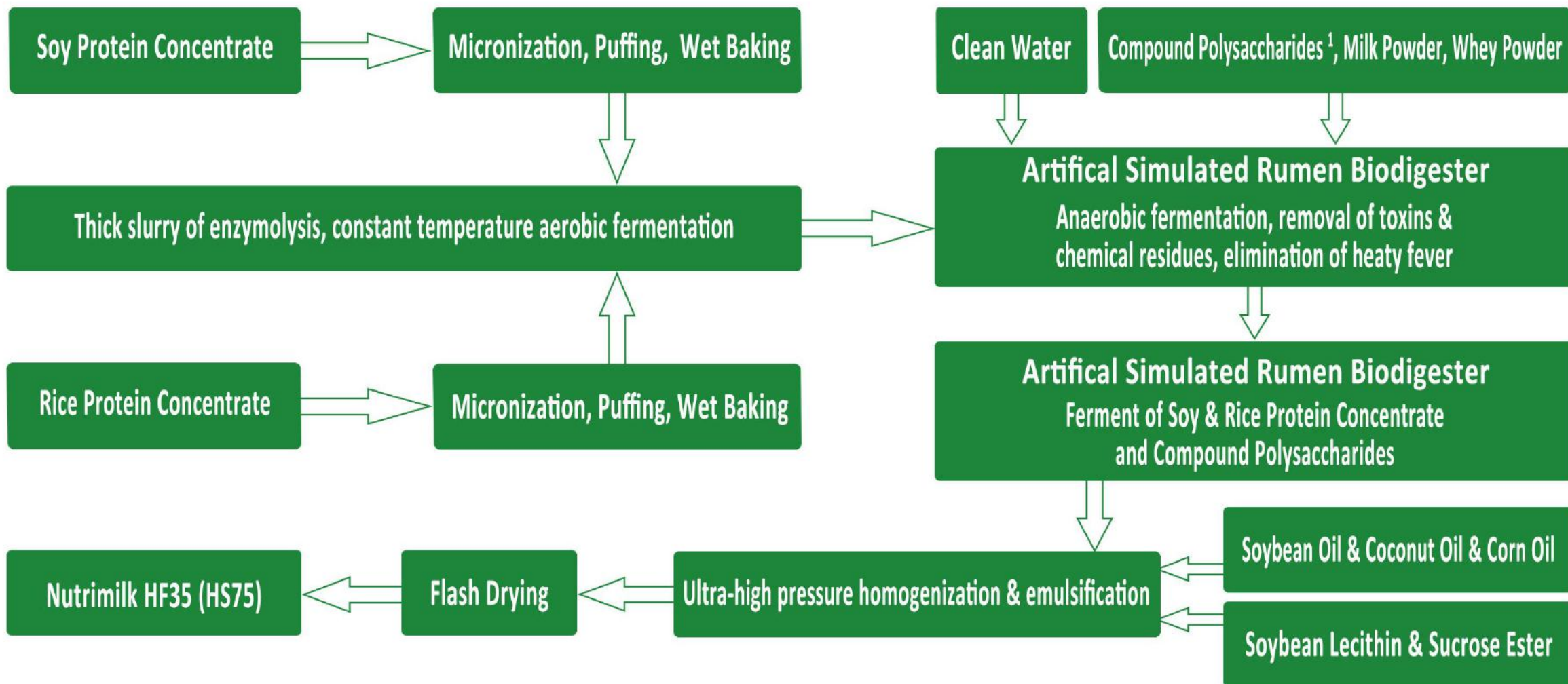
6. Sample test



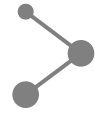
High protein content; very low in surface oil, acid value, peroxide value, soybean antinutritional factor, mycotoxin, solvent residue and fat in feces.



Production Process



Remark: 1. Compound Polysaccharides contain Maltodextrin, Fructose, Glucose, Sucrose, Oligose.



Production Process



Puffing



Baking



**Enzymolysis &
Fermentation**



**Homogenization &
Emulsification**



Nutrimilk HF35 1T

One kind of acid

more than 10kg organic acid

1

10% polypeptide & protein

100kg antigen free polypeptide
and soluble protein

10

Four kinds of sugar & SDF

350kg maltodextrin & maltose,
50kg glucose & fructose, 50kg sucrose
& galactose & lactose & oligose
and 50kg soluble dietary fiber

4

Two kinds of probiotics

1g Nutrimilk HF35 contains more than
 1.0×10^5 CFU/g Yeast and lactobacillus

2

Three kinds of missible oil

350kg emulsified soybean oil or coconut oil
or corn oil and modified soybean lecithin or
sucrose ester

3



Nutrimilk HS75 1T

One kind of acid

more than 10kg organic acid

1

10% polypeptide & protein

100kg antigen free polypeptide
and soluble protein

10

Two kinds of probiotics

1g Nutrimilk HS75 contains more than
 1.0×10^5 CFU/g Yeast and lactobacillus

2

Three kinds of missible oil

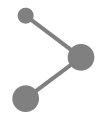
60kg emulsified soybean oil or coconut oil
or corn oil and modified soybean lecithin or
sucrose ester

3

Four kinds of sugar & SDF

600kg maltodextrin & maltose,
100kg glucose & fructose, 50kg
sucrose & galactose & lactose & oligose
and 50kg soluble dietary fiber

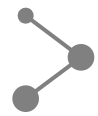
4



Measured content of main nutrients

in Nutrimilk HF35 (Average of 5 measurements)

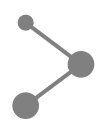
Item	Index	Item	Index
DE kcal/kg	5825.6	Ca %	0.25
ME kcal/kg	5521.9	TP %	0.47
NE kcal/kg	4267.2	CA / %	2.06
Moisture / %	4.4	Xylo-oligos / %	0.45
Emulsified fat / %	35.9	Mannan-oligo+Glycan-oligo / %	0.45
Coated emulsified fat / %	31.7	Oligomeric pectin / %	0.62
CP %	10.2	Total organic acid / % (In terms of Lactic Acid)	0.52
Antigen-free polypeptide / %	8.53	Acid Value mgKOH/g	0.13
Total soluble sugar / %	45.6	Peroxide Value mmol/kg	0.25
Maltodextrin+Maltose / %	35.9	Urease activity / U/g	Not detected
Fructose+Glucose+Sucrose+Galactose/Lactose / %	6.5	Trypsin inhibitor TIU/mg	0.005
CF %	1.25	Total Probiotics CFU/g	$\geq 2.5 \times 10^5$



Measured content of main nutrients

in Nutrimilk HS75 (Average of 5 measurements)

Item	Index	Item	Index
DE kcal/kg	4262.5	Ca %	0.26
ME kcal/kg	4013.7	TP %	0.45
NE kcal/kg	3125.6	CA / %	1.85
Moisture / %	4.3	Xylo-oligos / %	0.85
Emulsified fat / %	6.2	Mannan-oligo+Glycan-oligo / %	0.57
Coated emulsified fat / %	5.7	Oligomeric pectin / %	0.87
CP %	10.6	Total organic acid / % (In terms of Lactic Acid)	0.56
Antigen-free polypeptide / %	8.62	Acid Value mgKOH/g	0.11
Total soluble sugar / %	75.2	Peroxide Value mmol/kg	0.23
Maltodextrin+Maltose / %	64.9	Urease activity / U/g	Not detected
Fructose+Glucose+Sucrose+Galactose/Lactose / %	8.7	Trypsin inhibitor TIU/mg	0.01
CF %	1.28	Total Probiotics CFU/g	≥2.6×10 ⁵



Measured content

Amino acids

Item	Content/%	Item	Content/%
Lys	0.48	Gly	0.35
Met	0.13	Ala	0.35
Trp	0.12	Cys	0.12
Phe	0.41	Val	0.39
Leu	0.60	Asp	0.77
Ile	0.36	His	0.21
Thr	0.26	Arg	0.58
Ser	0.40	Tyr	0.28
Glu	1.45	Pro	0.40



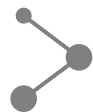
Feeding Effect

Based on the experimental datas of 360 heads Nursery Pigs (test period 28 days) and 48 heads Lactating Sows (test period 23 days), the ADG & Feed Intake of Nursery Pigs and the Feed Intake of Sows & the ADG of Piglets in Test Groups compared with that in Control Group, were significantly increased after proportionally substituting low-protein Whey Powder, Soybean Oil, 46% Soybean Meal, Fermented Soybean Meal, Soy Protein Concentrate, Extruded Soybean, Glucose and Fish Meal in the original formula. On the basis of the price of Nursery Pigs: RMB 20 /kg, Piglets annual born healthy: 25 heads, Weaned Piglets selling price: RMB 400/head, Sows annual parity: 2.3, other cost of Sows: RMB 3000/head, the feed cost is obviously reduced and the economic benefit is obviously improved.

Remark:

Economic Benefit for Nursery Pigs = (Nursery Pig weight gain x Nursery Pig selling price) - (Nursery Pig feed consumption x feed cost);

Economic Benefit for Sows = Piglets annual born healthy x Piglets survival rate x Weaned Piglets selling price - Feed consumption during lactation x feed cost x 2.3 - other cost of Sows.



Feeding Effect

FIG. 1 Effects of Nutrimilk HS75 on the ADG of nursery pigs (g/d)

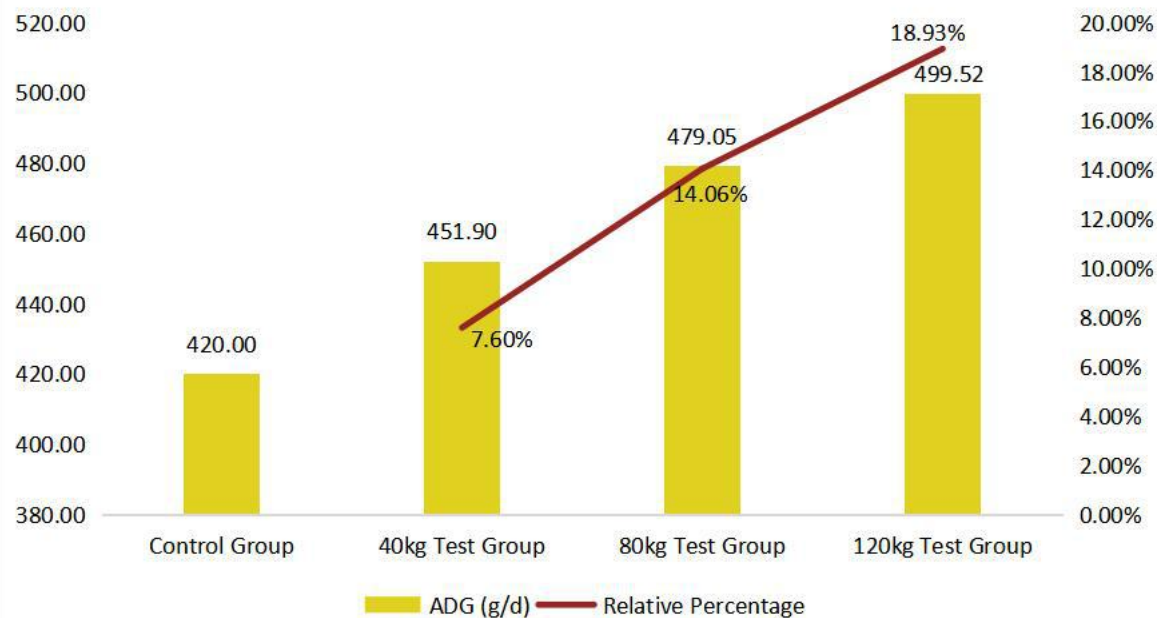
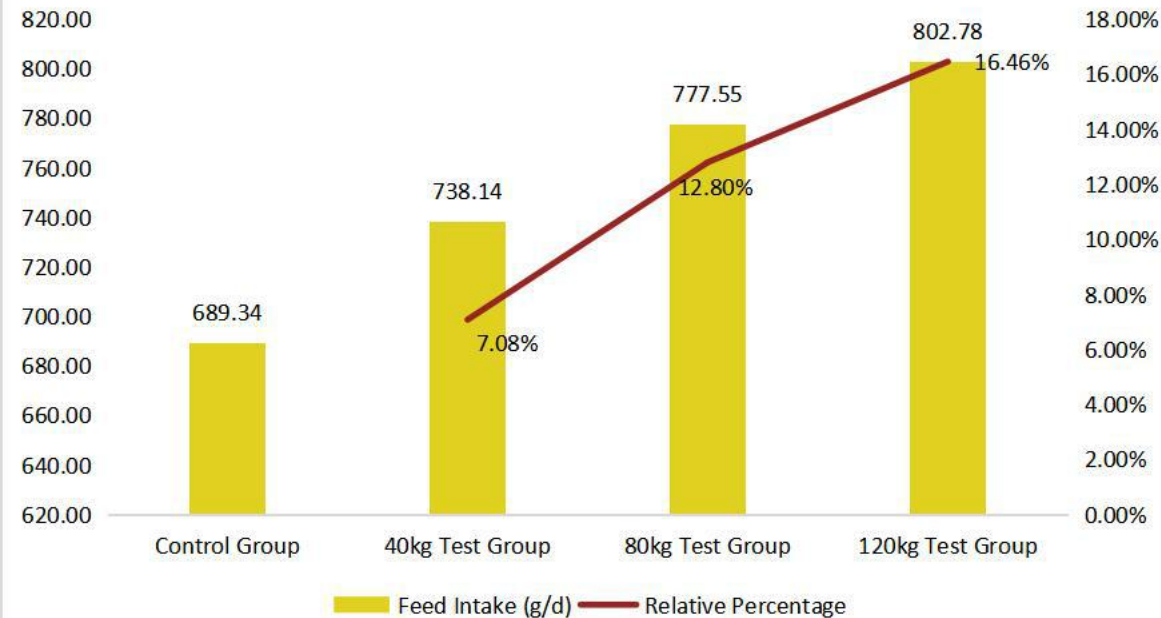
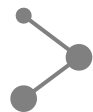


FIG. 2 Effects of Nutrimilk HS75 on the Feed Intake of nursery pigs (g/d)





Feeding Effect

FIG. 3 Effects of Nutrimilk HS75 on the Cost of nursery pig feed (RMB/Ton)

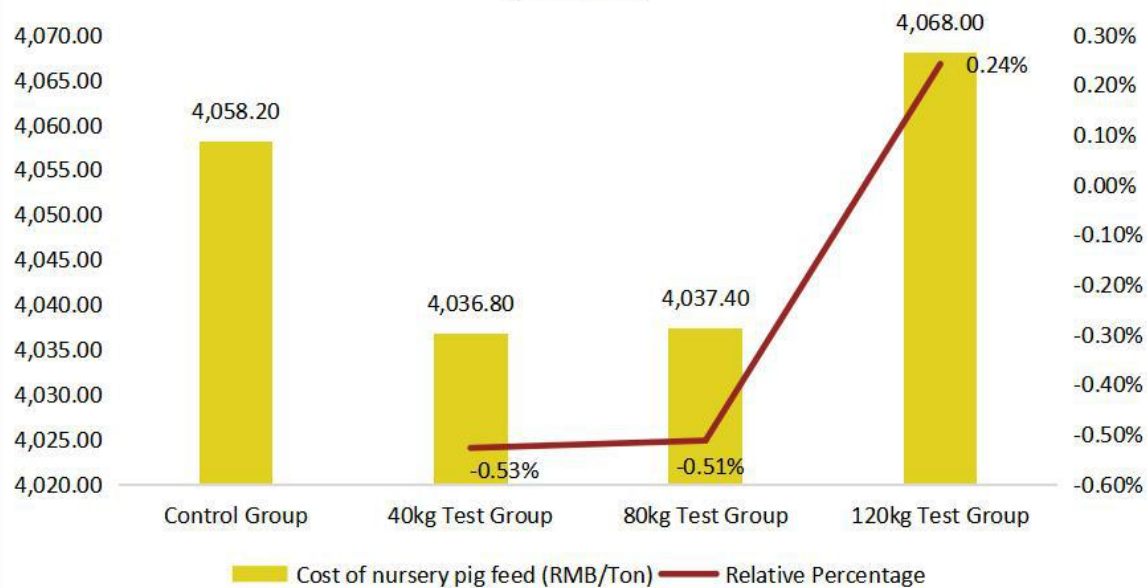
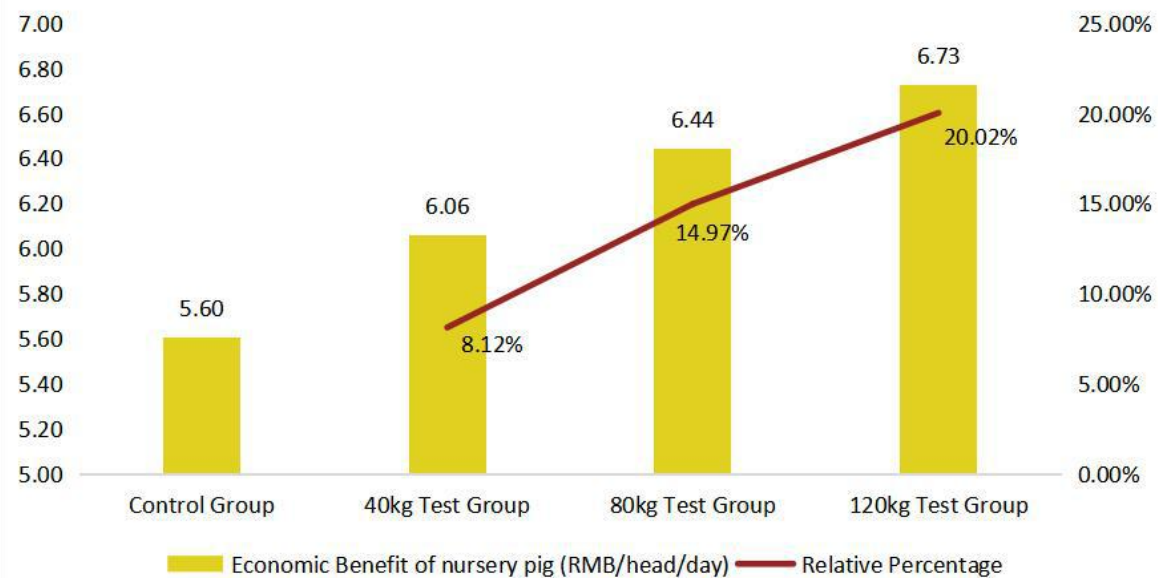
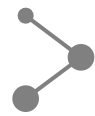


FIG. 4 Effects of Nutrimilk HS75 on the Economic Benefit of nursery pig (RMB/head/day)

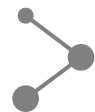




Feeding Effect

Nutrimilk Group

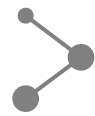




Feeding Effect

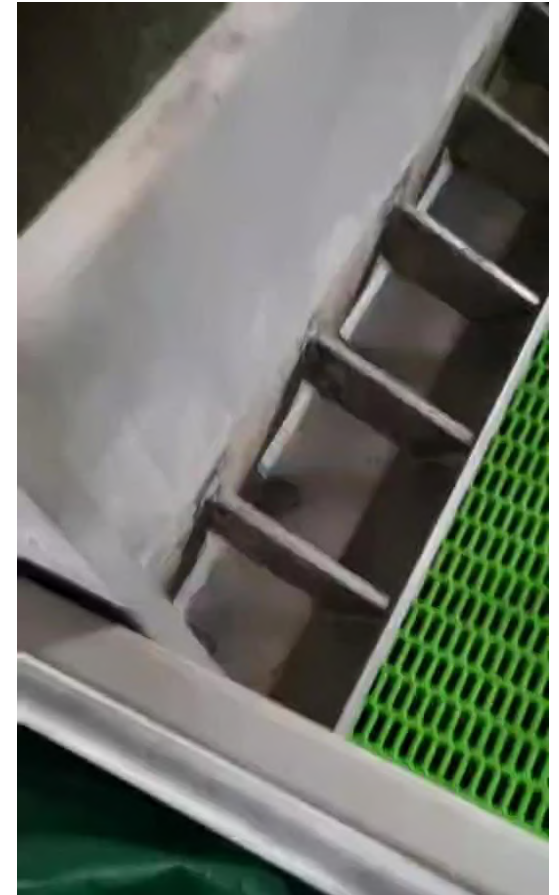
Control Group





Feeding Effect

Comparison Video



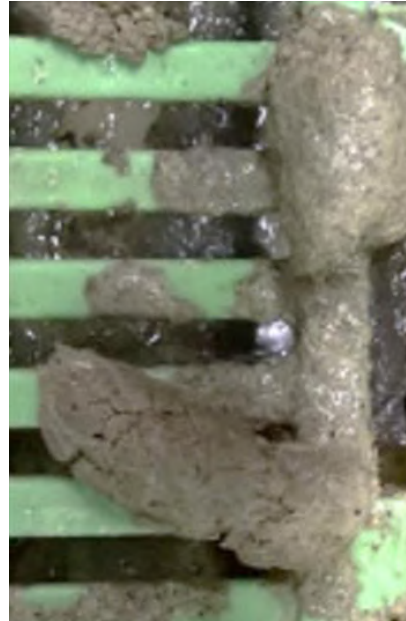


Feeding Effect

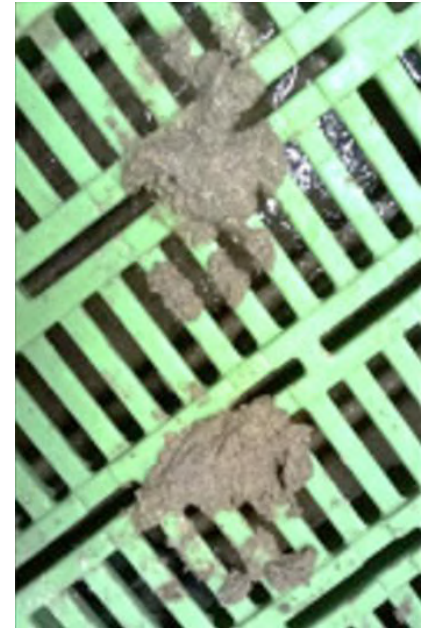
No Diarrhea



Test group with Nutrimilk



Control group



Control group



Feeding Effect

FIG. 5 Effects of Nutrimilk HF35 on the Feed Intake of sows (g/d)

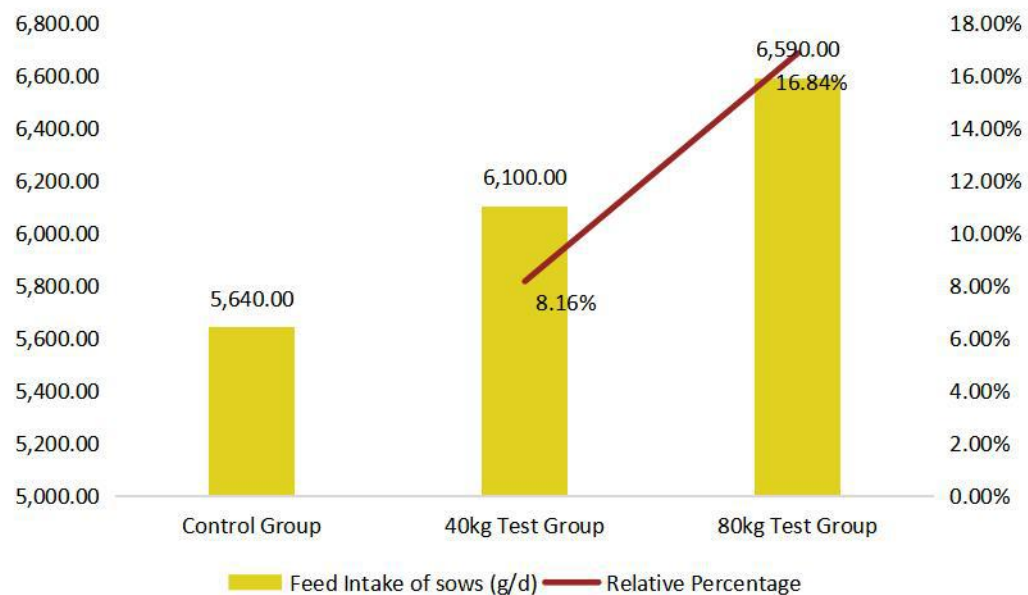
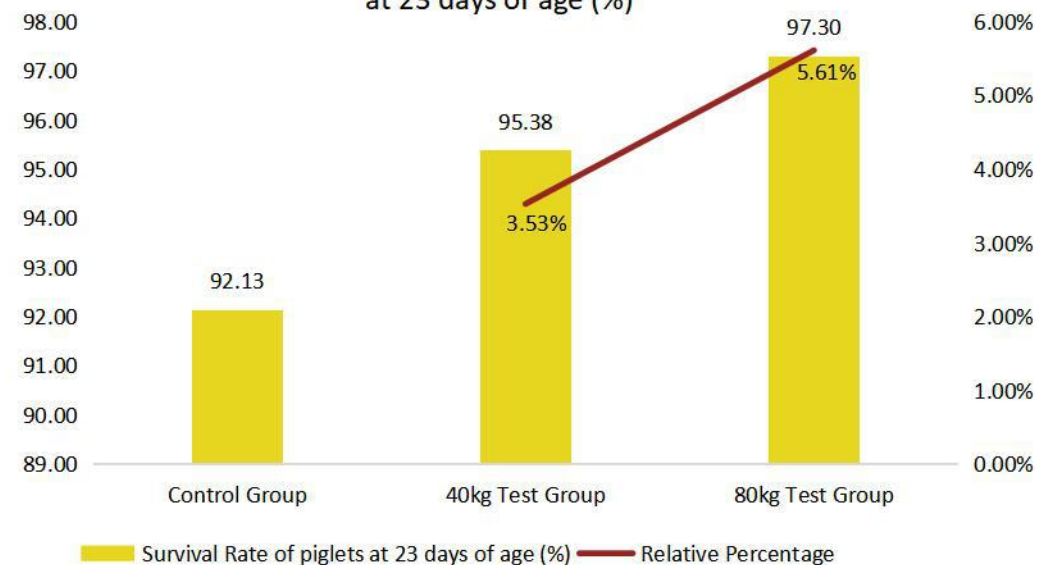


FIG. 6 Effects of Nutrimilk HF35 on Survival Rate of piglets at 23 days of age (%)





Feeding Effect

FIG. 7 Effects of Nutrimilk HF35 on the Cost of sow feed (RMB/Ton)

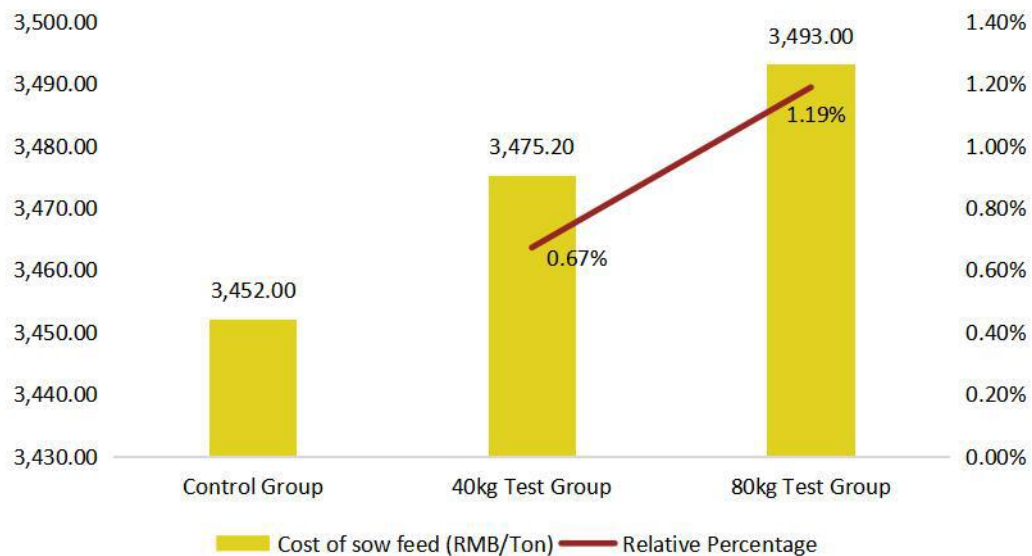
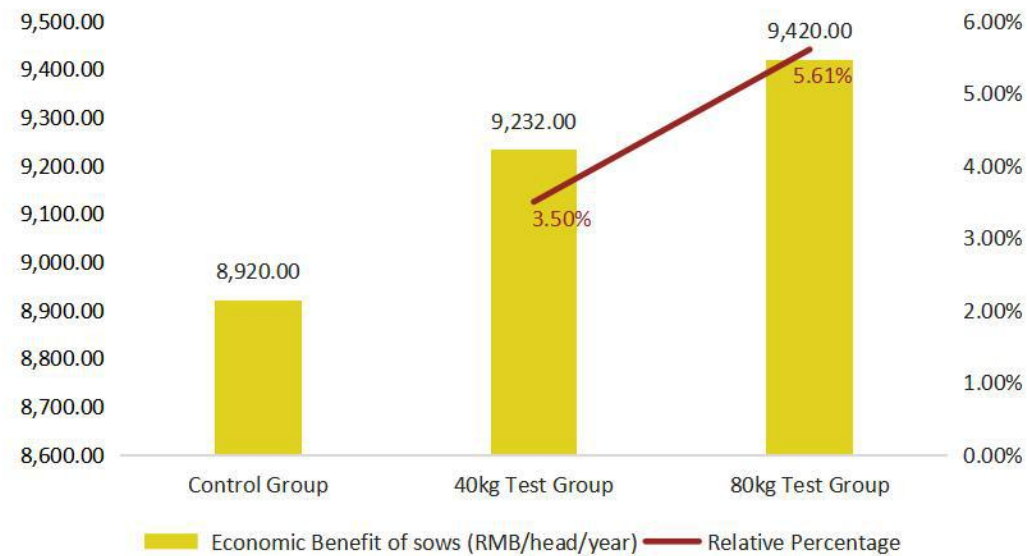


FIG. 8 Effects of Nutrimilk HF35 on the Economic Benefit of sows (RMB/Sow/Year)





Feeding Effect

Based on the experimental datas of 100 heads Calves (test period 55 days) and 200 heads Lambs (test period 35 days), the ADG & Feed Intake of Calves and that of Lambs in Test Groups compared with that in Control Group, were significantly increased after proportionally substituting low-protein Whey Powder, Milk Powder, Soybean Oil, Soy Protein Concentrate, 46% Soybean Meal, Fermented Soybean Meal, Extruded Soybean, Glucose and Fish Meal in the original formula.



Feeding Effect

FIG. 9 Effects of Nutrimilk HS75 on the ADG of calves (g/d)

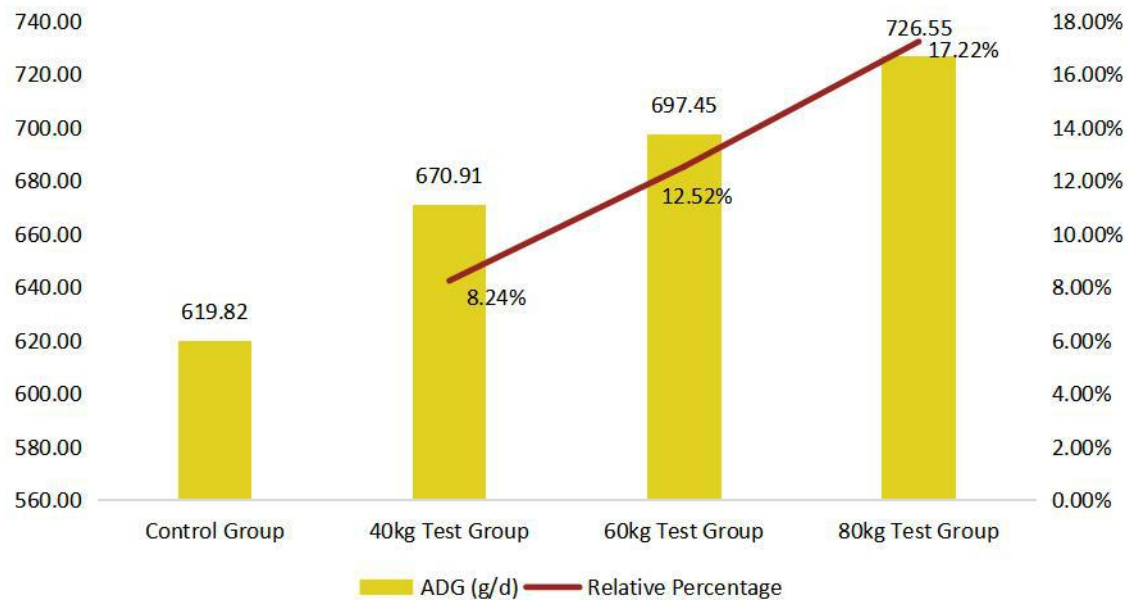
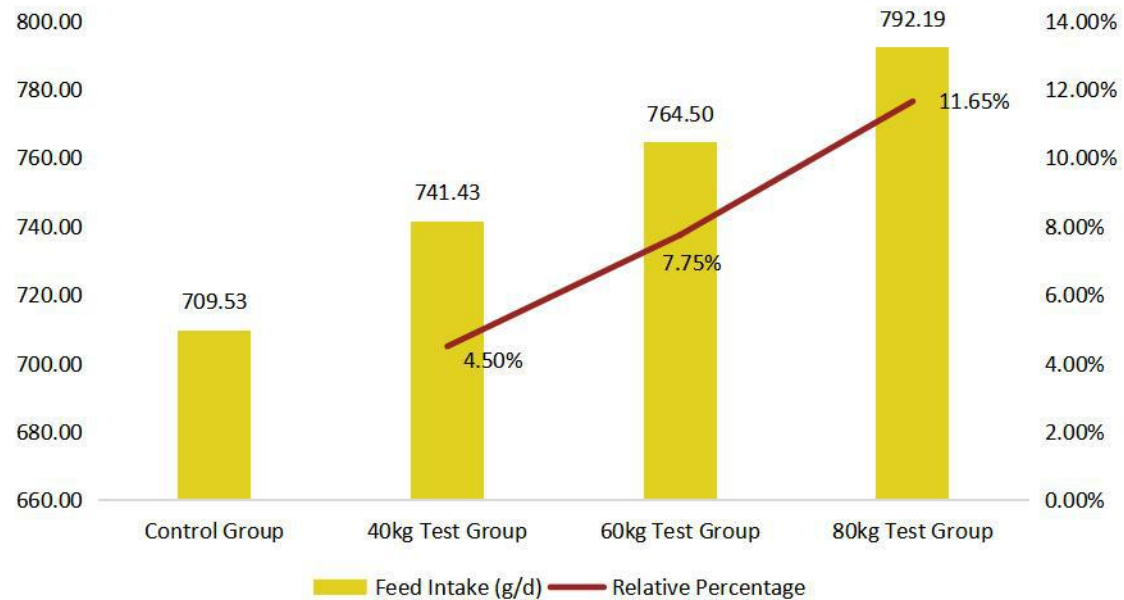
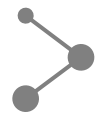


FIG. 10 Effects of Nutrimilk HS75 on the Feed Intake of calves (g/d)





Feeding Effect

FIG. 11 Effects of Nutrimilk HS75 on the ADG of lambs (g/d)

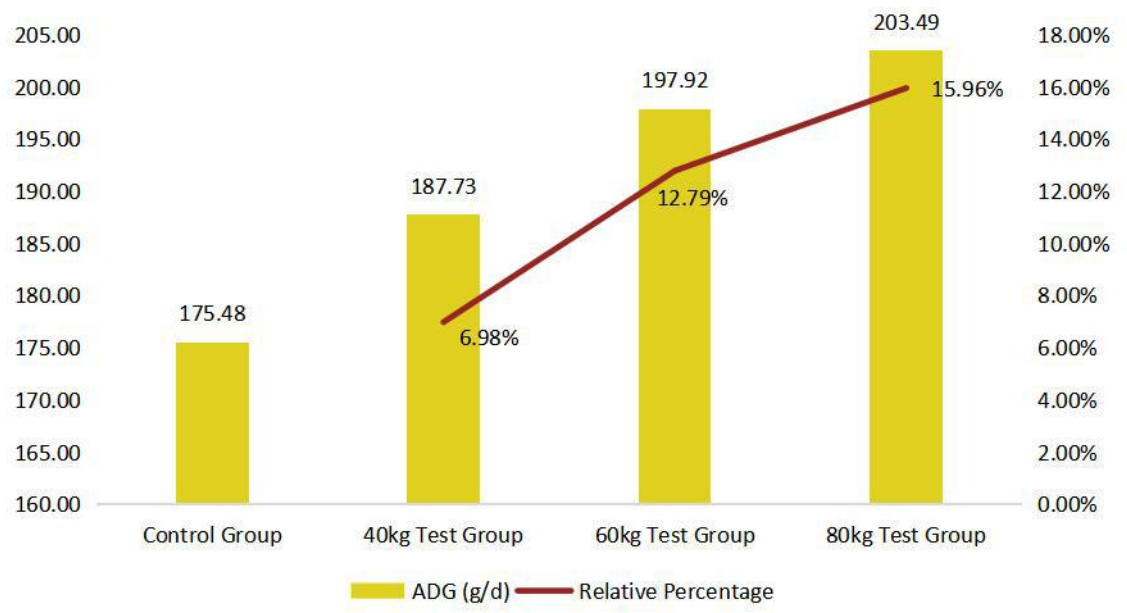
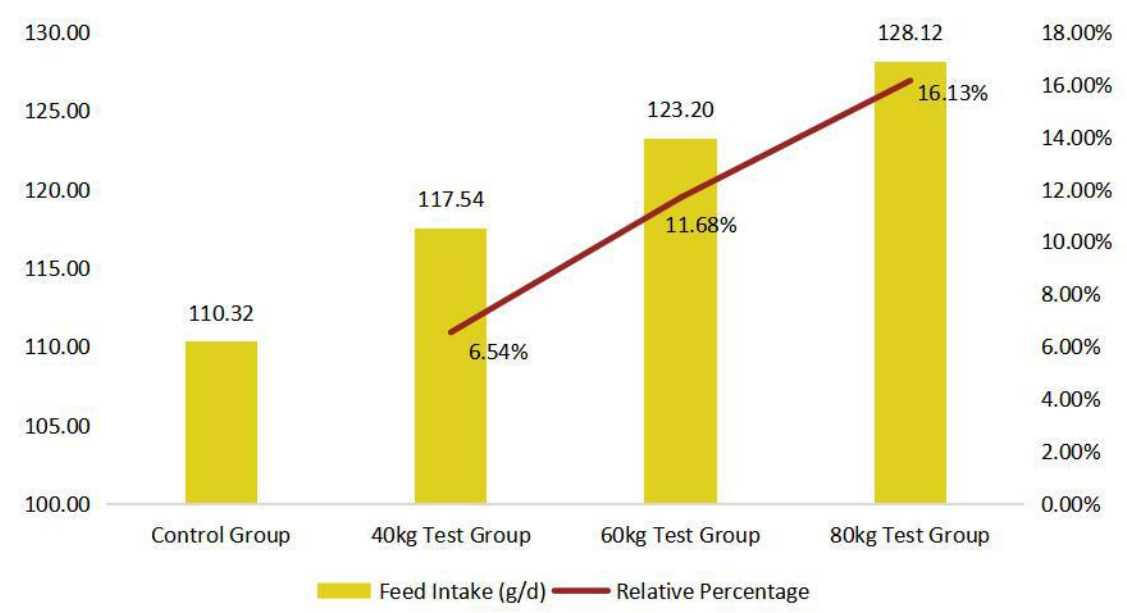
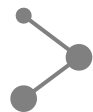


FIG. 12 Effects of Nutrimilk HS75 on the Feed Intake of lambs (g/d)





Usage



Nutrimilk

Use for the preparation of formula, nursery feed for piglets, the preparation of milk replacer, feed for lactating sows & cows and ewes, starter feed for young & laying & breeding poultry, feed for animals with fur, including dogs & cats.



Suckling Piglet: 40-80 kg/ton feed;

Lactating Sow: 20-40 kg/ton feed;

Young & Laying & Breeding Poultry: 5-10 kg/ton feed;

Weaned Piglet: 30-60 kg/ton feed;

Fish & Shrimp: 5-10 kg/ton feed;

Fur Animals & Dogs & Cats: 20-40 kg/ton feed



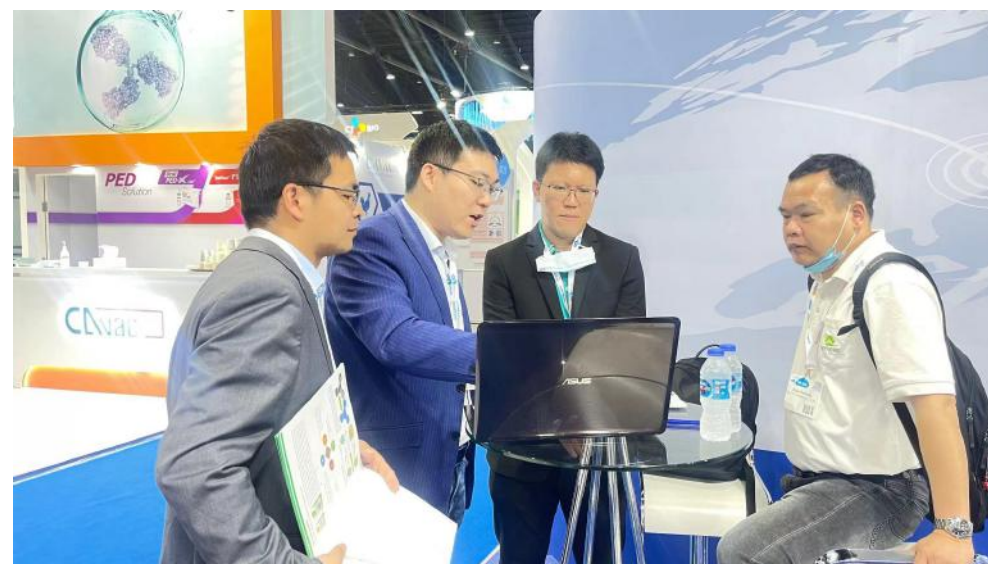


Cooperative Partner

COOPERATIVE PARTNER 合作伙伴

 WENS 温氏	 新希望集团 NEW HOPE GROUP	 牧原股份 MUYUAN	 YANGXIANG 扬翔股份	 傲农集团 AONONG GROUP
 DBN 大北农集团 DA BEI NONG GROUP	 TIANBANG 天邦股份	 五华 LIANHUA	 ANWU 安佑	 SUNNER 圣农集团 Sunner Group
 双胞胎集团 TWINS GROUP	 正邦集团 ZHENGHANG GROUP	 特驱集团 TEQU GROUP	 海大集团 HAID GROUP

Presentation on exhibition





Company Introduction

HANTECH Group is a National High-tech Enterprise, professionally engaged in R & D and production of high-grade biological feed ingredients and mainly produce biological pre-digestion products.



Established on Nov. 9, 2010



Three biological predigestion bases



About 300 existing staffs



Total assets RMB 1.269 billion





Lu'an North Base: Annual production of
300000 tons of Nutrimilk



Lu'an South Base



Chaohu Base



The Position



Lu' an predigestion base
**located in Lu' an State-level Economic-
technological Development Zone**
covers an area of 41 acres
12,000m² office building
9000m² science and technology building
129,000m² production workshop



Chaohu predigestion base
**located in Chaohu Juchao Economic
Development Zone**
covers an area of 24 acres
3000m² office building
6000m² science and technology building
85,000m² production workshop



Fermentation & Emzymolysis Area



Fermentation & Emzymolysis Tanks



Strain Fermentation Tanks



Strain Expansion Culture Workshop



Storage



Drying Workshop



Fermentation Workshop



Standard Laboratory



Honors



National Superior Enterprise of IPRs



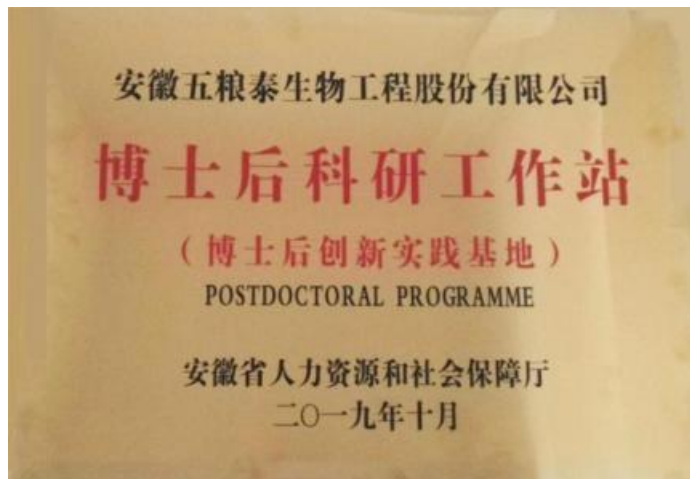
National High-tech Enterprise



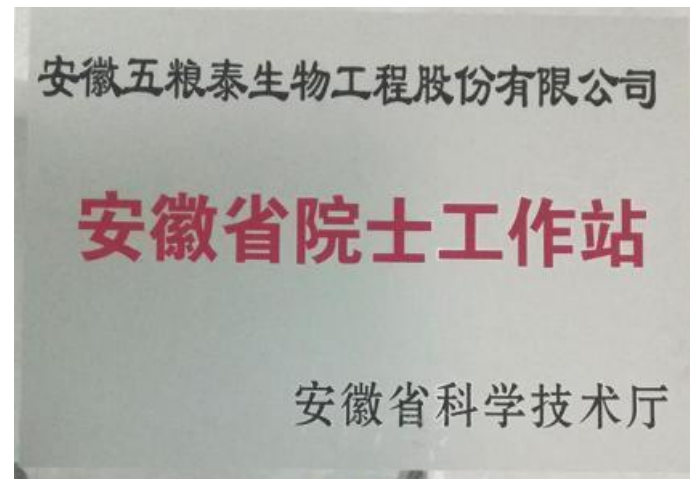
Anhui Provincial Patent Gold Award



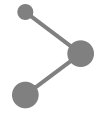
Anhui Province Enterprise Technology Center



Post-Doctoral Research Center



Academician Workstation (2016-2019)



Chairman Prof. Maoji Cheng

Chairman, Chief engineer, Doctor, Doctoral graduate tutor

Talent of National "Ten Thousand Project"

Leading talent in scientific and technological innovation and entrepreneurship of "Innovative Talents Promotion Program"

Innovation and Entrepreneurship leading talent of Anhui Provincial "Special Support Plan"

Served as Deputy Director of Science and Technology Division and Deputy Dean of College of Animal Science and Technology of Anhui Agricultural University

Served as Project Minister, Chief Engineer and Deputy General Manager of BBKA Biochemistry

Served as Deputy Director of National Fermentation Technology Engineering Research Center of BBKA Group



程茂基



Our Service



High precision facilities
of manufacturing and
testing



Top class R&D team and
Product, formula,
breeding tech training



Quick response
service team

Welcome to Join Us!



Thank you

2024.9

