

**ZKWL**

**NATURAL**

**+**

**EFFICIENT**

**Animal nutrition expert**

**UNION ZKWL<sup>®</sup>**

**ZHONGKE**

**GREAT UNION**

**Beijing Zhongke Great Union Science & Technology Co., Ltd.**



<http://www.bjzkwl.com>

# About Us

Beijing Zhongke Great Union Science and Technology Co., Ltd. is a large scale comprehensive agriculture and animal husbandry enterprise, integrating research and development, production, operation, and training with international trade. The Company is headquartered in Beijing Economic & Technology Development Area, which is a national economic and technological development zone. The Research and Development Department cooperates with experts from China Agricultural University, and the Chinese Academy of Agricultural Sciences, to develop new products.





**NATURAL+EFFICIENT**



# PRODUCTS

## Zhongke Great Union



### Crown Vitamin

Multivitamins with extreme cost-effectiveness

#### ●Main Ingredients

Vitamin A acetate, Vitamin D3, Vitamin E, Vitamin K3, Vitamin B1, Vitamin B2, Vitamin B6, Vitamin B12, Vitamin C, Folic acid, Nicotinamide, D-Calcium pantothenate, D-biotin, DL-methionine, Lysine hydrochloride, Cystine, Valine, Isoleucine, L-leucine, L-tyrosine, Phenylalanine, Arginine, L-histidine, L-threonine, Sodium chloride, Anhydrous glucose, Xylooligosaccharides, Starch as carrier.

#### ●Function and Features

1. Supplements of amino acids and vitamins.
2. Helps recover the physical conditions.
3. Excellent solubility, quite convenient application.
4. Applies when herd transfer, vaccine, transportation, illness recovery, castration, feed change, and weather change.

#### ●Usage and Dosage

1. For drinking water or feeds.
2. 1 kg to 2 tons - 4 tons of drinking water, or 1 kg to 2 tons - 4 tons of feed.

#### ●Note

1. Mix evenly.
2. Safe, stable, no residue, and long-time use.
3. Applicable for pregnancy animals.

#### ●Shelf Life 24 months.

#### ●Package 1 kg per jar.



### Vitamin Essence

Water soluble multivitamin granules

#### ●Main Ingredients

Vitamins, Amino acids, Microbiological agents, Electrolyte, Anti-stress factors.

#### ●Function and Features

1. Quickly supplements multi-nutrients to fill the nutrient requirements of all species of livestock and poultry at different stages, such as vitamins, and amino acids.
2. Enhances immunity and promotes disease recovery.
3. Probiotics in this product can optimize the intestinal microbiota, decreasing the rate of diarrhea.
4. Improves palatability with natural scent and flavor.
5. Effectively mitigates the stress responses caused by weather change, vaccination, or herd transfer.
6. Improves FCR and growth, improves milk production and milk quality, and improves egg laying rate and egg quality.

#### ●Usage and Dosage

1. For drinking water or feeds.
2. For daily health care, 500 g to 2 tons of drinking water, or 500 g per ton of feed.
3. For stress mitigation, 500 g per ton of drinking water, or 500 g to 500 kg per ton of feed.

#### ●Shelf Life 24 months.

#### ●Package 500g per bag × 25 bags per bucket.



### ZK AA Vitamin

Multivitamins and multi-amino acids

#### ●Function and Features

1. Quickly supplements vitamins, balances amino acids, and unleashes the maximum growth potential of animals.
2. Using nanotechnology to make small molecule vitamins more easily absorbed by the body.
3. Reduces stress caused by vaccination, herd switching, beak cutting, transportation and disease.
4. Improves the survival rate of young livestock and poultry, improves the quality of eggshells and carcasses and increases the reproductive rate of livestock and poultry.
5. Adds beneficial microorganisms, improves gut microbiota, reduces diarrhea, enhances nutrient absorption, and reduces ammonia concentration in the building.
6. Improves immunity, reduces the occurrence of diseases, and facilitates recovery after illness.
7. Adds organic acids and enhances the absorption of nutrients such as calcium and phosphorus.

#### ●Directions for Use

1. Applicable animals: pigs, poultry, livestock, fur, aquatic animals, etc.
2. 500g to 2000kg of drinking water. 500g to 1000kg of feed.
3. If the disease is highly prevalent, the dosage can be increased by up to 1.5 times.
4. Applicable for pregnancy animals.

#### ●Shelf Life 24 months.

#### ●Package 1kg per jar × 8 jars per box.



### Cod-liver oil

Water soluble cod-liver oil powder

#### ●Main Ingredients

Vitamin A, Vitamin D3, Vitamin E, etc.

#### ●Function and Features

1. Reduces vitamin A, vitamin D3 and vitamin E deficiency, and improves the semen quality of breeding animals, pregnancy rate of female animals, fertility rate of breeding eggs, survival rate, egg laying rate and egg quality of laying poultry. Reduces the occurrence of photophobia, redness, and swelling of chicken eyes, rickets and osteomalacia.
2. Strengthens the metabolism of livestock and poultry, improves growth, development and immunity, and promotes the absorption of calcium and phosphorus and bone formation.
3. Helps repair the damaged epithelial tissue, improves immunity, and promotes disease recovery when respiratory, digestive, and urogenital diseases happen.
4. Increases fertility, sex hormones formation, and improves farrowing rate, growth of young animals, and fur quality of fur animals.

#### ●Usage and Dosage

1. For swine, ruminant, and poultry.
2. 500g to 2 tons of drinking water, or 500g per ton of feed. Mix uniformly and continuously use for 3-5 days.
3. Applicable for pregnancy animals.

#### ●Shelf Life 24 months.

#### ●Package 500g per bag × 25 bags per bucket.





## PIHEPR

Piglets grow fast and fat

### ●Main Ingredients

Clostridium butyricum, Enterococcus faecalis, Bacillus subtilis, freeze-dried yogurt powder.

### ●Function and Features

- 1.Promotes the piglets' intestines development.
- 2.Promotes piglet feeding and digestion absorption.
- 3.Helps creep feeding.
- 4.Promotes growth performance.
- 5.Improves the growth of stiff piglets.
- 6.Supplements nutrients.

### ●Directions for Use

1. Yogurt preparation: Mix 250 grams of PIHEPR in 1 L water until it becomes yogurt like, for use by 25 piglets.
2. Drinking water: Mix 250g of PIHEPR with 5L of water, and piglets can drink freely.
3. Creep feeding: Sprinkle PIHEPR on the creeps to improve the creep feeding speed.
4. Add 1000 g of PIHEPR per ton of feed for piglets, add 500 g of PIHEPR per ton for fattening and breeding pigs.

●Shelf Life 24 months.

●Package 250 g per bag× 10 bags per bucket.



## Environmental modifier

Environmental improver and disinfectant

### ●Main Ingredients

Natural essential oils, marine algae, yucca, enhanced desiccant, natural spice, trace elements, etc.

### ●Function and Features

- 1.Used for drying the surface of new-born animals, reduces energy loss. With super strong water absorption ability, after applied to the surface of newborn piglets, quickly absorbs water from the body surface, maintains body surface temperature, improves survival rate, reduces weak piglets, and accelerates umbilical cord detachment.
- 2.Absorbs bacteria, inhibits the reproduction of pathogens, and reduces the incidences of bacterial diarrhea, foot-and-mouth-disease, and other foot and limb diseases.
- 3.Reduces moisture, keeps houses and pens dry, repels mosquitos and flies with spraying on livestock buildings, facilitates, animal activity areas.
- 4.Absorb indoor ammonia and other harmful gases, reducing immune function decline, keratitis, conjunctivitis, tracheitis, bronchitis, pulmonary edema, bleeding, and immune failure caused by ammonia gas in closed environments.
- 5.Heals injuries and wounds of umbilical cord, ear-cutting, and tail-cutting, can be used for cleaning the external genitalia of mammals after childbirth.
- 6.Improves sanitation when sprayed on the ground of livestock sheds and delivery rooms, reduces ammonia and other harmful gases, creates a comfortable environment, reduces animals' fighting and reduces stress caused by environmental factors.
- 7.Reduces incidence of bacteria diarrhea when applied to feeds.
- 8.With super strong water absorption ability, reduces product usage amount and reduces usage costs.

### ●Usage and Dosage

- 1.After birth of newborn, used to evenly coat the whole body, 10-20g per head.
- 2.For breeding pig, apply to the external genitalia to sows before and after mating or postpartum, 20g per head. Spray on the boar house, 50-100g per day per head.
- 3.For house disinfection, spray on the ground and wall, 2-3 times per week, 5-10g per square meter.
- 4.For gastrointestinal tract, 500g per ton of compound feed.

●Shelf Life 24 months.

●Package 1000g per bag× 10 bags per box.



## ZKMILK

Nutritious, delicious, growth promoting

### ●Main Ingredients

Clostridium butyricum, Enterococcus faecalis, Bacillus subtilis, amino acid chelated trace elements. Imported whole milk powder as carrier.

### ●Function and Features

- 1.Regulates balance of intestinal microbiota, promotes reproduction of beneficial flora, repairs intestinal tract, relieves diarrhea, and enhance immunity.
- 2.With adequate and balanced nutrition, and high protein content, substitutes for breast milk, fully fulfills the nutritional needs, accelerates the growth and development of piglets.
- 3.With good palatability, helps wean early, reduces stress, and improves weight of litter at weaning and uniformity.
- 4.With multi-amino acid chelated trace elements, accelerates growth and development of piglets. Focuses on the iron supplementation for lactation nutrition, reddens skin and shines hair.

### ●Usage and Dosage

- 1.For breast milk substitution, 1:5-1:6 ratio of warm water for brewing, 6-8 times a day for each head, 30-50mL each time.
- 2.For creep feeding period, 4% to feed or directly sprinkled in the feed slot for piglets to lick.

●Shelf Life 24 months.

●Package 1000g per can × 8 cans per box.



## Yuccare

Intestinal care

### ●Main Ingredients

North America imported yucca, plant extracts, feeding attractant, yeast culture.

### ●Function and Features

- 1.Improves nutrients adsorption, improves growth performance, and improves breeding benefits.
- 2.Improves reproductive performance of female animals, improves number of healthy piglets and survival rate of piglets, and relieves constipation in female animals.
- 3.Reduces weaning stress.
- 4.Optimizes gut microbiota, improves intestinal structure, and promotes intestinal development.
- 5.Reduces ammonia emissions and improves breeding environment.

### ●Directions for Use

10kg to 1000kg of feed. Applicable for pregnant animals.

●Shelf Life 24 months.

●Package 10kg per bag.



# PRODUCTS

## Zhongke Great Union



### ZK Cleantox

Degrading, binding, Immune improving

#### ●Main Ingredients

Aflatoxin degrading bacteria and enzymes, zearalenone degrading bacteria and enzymes, trichothecenes type B degrading bacteria and enzymes, organic clay, oligosaccharides, and yeast cell wall.

#### ●Function and Features

- 1.Efficient adsorption: selected organic clay and biological adsorption components, can efficiently adsorb aflatoxin, zearalenone, and ochratoxin.
- 2.High enzymatic hydrolysis activity: aflatoxin degrading bacteria, zearalenone degrading bacteria, trichothecenes type B degrading bacteria and their enzymes can synergistically degrade multiple toxins with high degradation rates and strong specificity.
- 3.High immune enhancement: Toxin degrading bacteria and mannan oligosaccharides can alleviate the damage caused by toxins to the body, protect the liver and kidneys, promote intestinal health, and enhance the body's immune performance.
- 4.Unique properties: Biodegradation, organic adsorption, does not affect the nutritional composition of feed.

#### ●Directions for Use

- 1.500g-2kg per ton of feed. Determine the actual dosage based on the degree of toxin contamination and animal symptoms.
- 2.Applicable animals: livestock, poultry, aquatic animals, suitable for pregnant animals.

#### ●Shelf Life 24 months.

#### ●Package 1kg per bag× 10 bags per bucket.



### ZK Cleantox Pro

Water-soluble detoxicant

#### ●Main Ingredients

$\beta$ -1,3-D-glucan, mannan oligosaccharide, organic acids, glucose oxidase, etc.

#### ●Function and Features

- 1.With strong mycotoxin binding and degrading capacity, detoxifies multi-mycotoxins and forms non-toxic compounds and eliminates out of body.
  - 2.Absorbs no nutrients.
  - 3.Protects liver and kidney functions.
- #### ●Usage and Dosage
- 1.250g-500g per ton of drinking water.
  - 2.500-1kg per ton of feed.
  - 3.Applicable for pregnancy animals.

#### ●Shelf Life 24 months.

#### ●Package 1000g per bag× 15 bags per bucket.



### Green Acid

Natural bio-acids

#### ●Main Ingredients

Lactic acid, citric acid, fumaric acid, acetic acid, malic acid, propionic acid, sorbic acid, benzoic acid, orthophosphate, excipients, etc.

#### ●Function and Features

- 1.Adjusts pH value of intestine and promotes the proliferation of beneficial bacteria.
- 2.Reduces diarrhea.
- 3.Activates enzyme sources, promotes digestion and absorption, and promotes growth performance.
- 4.Applies coated and sustained-release technology, with 30% released in the stomach and 70% released in the intestine.
- 5.Particles are intact with good dispersibility, good heat resistance and no compatibility restrictions.
- 6.Without destroying the nutritional components in feed.

#### ●Directions for Use

- 1kg to 2000-3000 kg of drinking water,
- 1kg to 1000-2000 kg of feeds.

#### ●Shelf Life 24 months.

#### ●Package 1kg per bag × 20 bags per bucket.



### Hasappetite

Feed intake promoter

#### ●Main Ingredients

Thiamine hydrochloride,  $\gamma$ -aminobutyric acid, Bacillus subtilis, enzymes, carrier, etc.

#### ●Function and Features

- 1.Increases palatability, and improves feed intake.
- 2.Optimized combination of probiotics and enzymes improves nutrient digestibility and absorption.
- 3.Improves digestion rate of feed, triggers sense of hunger, and increases appetite.
- 4.Reduces appetite loss caused by diseases, high-temperature, treatments, transportation, feed change, excess nutrition, or poor palatability.

#### ●Usage and Dosage

- 1.For livestock, poultry, aquaculture, fur animals.
- 2.250-500g per ton of drinking water. 500-1000g per ton of compound feed.
- 3.Applicable for pregnancy animals.

#### ●Shelf Life 24 months.

#### ●Package 500g per bag× 30 bags per bucket.





## ZK Fat Pigs

Good appetite, grow fast

### ●Main Ingredients

Xylanase, proteinase, cellulase, glucose oxidase, Bacillus subtilis, Bacillus licheniformis, Lactobacillus acidophilus, lactic acid, citric acid, fumaric acid, hawthorn, black plum, green peel, atractylodes macrocephala, yeast culture as carrier.

### ●Function and Features

- 1.Improves feed intake. Strengthens spleen, appetizes, reduces accumulated feed, and with good palatability.
- 2.Improves daily weight gain and strengthens fattening.
- 3.Increases feed conversion. Promotes gastric juice secretion, adjusts gastrointestinal peristalsis, balances the gastrointestinal microbiota, and reduces nutrient loss in feed during the digestion period.
- 4.Optimizes body shape and elongates skeleton. Increases slaughter rate, improves carcass quality, and reduces FCR.
- 5.Enhances immunity. Clears intestinal endotoxins, helps establish intestinal barrier. With acidifies, inhibits multi-pathogens, decreases disease incidence and reduces diarrhea.
- 6.Improves appearance and fur color.
- 7.Decreases ammonia content and improves breeding environment.
- 8.Improves piglets uniformity, improves growth of weak piglets, shortens period till marketing, and saves costs.

### ●Usage and Dosage

- 1.Fattening period, 1kg per ton of compound feed.
- 2.Piglet period, 2kg per ton of compound feed.
- 3.Safe, stable, residue-free, can be used for long time.
- 4.Applicable for pregnancy animals.

●Shelf Life 24 months.

●Package 1000g per bag × 10 bags per bucket.



## ZK Fat Cattle

Good appetite, grow fast

### ●Main Ingredients

Imported Yucca, complex enzymes, multi-probiotics, yeast culture as carrier.

### ●Function and Features

- 1.Improves feed intake. Attracts feeding with good palatability.
- 2.Improves gastrointestinal tract functions. With yucca essence, promotes reproduction of beneficial microorganisms, increases synthesis of rumen bacterial proteins, inhibits growth of pathogens, balances rumen microbial composition, repairs gastrointestinal damages, and enhances gastrointestinal functions in ruminant.
- 3.Promotes growth with multi-enzymes and probiotics. Promotes nutrients digestion and absorption, and shortens feeding time and the period until slaughter.
- 4.Optimizes body shape and elongates skeleton. Increases lean meat ratio, and improves carcass quality.
- 5.Improves appearance and fur color.
- 6.Decreases ammonia content, increases nitrogen utilization in feed, decreases methane production, and production of other harmful gases.

### ●Usage and Dosage

- 1.1kg per ton of feed.
- 2.Safe, stable, residue-free, can be used for long time.
- 3.Applicable for pregnancy animals.

●Shelf Life 24 months.

●Package 1000g per bag × 10 bags per bucket.



## ZK Fat Poultry

Good appetite, grow fast

### ●Main Ingredients

Xylanase, protease, cellulase, glucose oxidase, Bacillus subtilis, Bacillus licheniformis, Lactobacillus acidophilus, lactic acid, citric acid, formic acid, with lysine as the carrier.

### ●Function and Features

- 1.Relieves stress, reduces energy consumption, eliminates fighting, feather pecking, anal pecking, and other phenomena.
- 2.Promotes growth performance, improves feed utilization efficiency and reduces FCR.
- 3.The interaction between complex enzymes, probiotics, and organic acids protects intestinal health.
- 4.Improves meat quality and body shape.

### ●Directions for Use

1kg per ton of drinking water or feed.

●Shelf Life 24 months.

●Package 1kg per bag × 10 bags per bucket.



## ZK Nutritious Eggs

Healthy hens, nutritious eggs

### ●Main Ingredients

25-OH-vitamin D3, protease, mannanase, oligosaccharides.

### ●Function and Features

- 1.Improves egg production rate and prolongs peak period.
- 2.Increases egg weight and reduces FCR.
- 3.Improves the hardness and smoothness of eggshells and reduces broken eggs.
- 4.Improves egg quality.
- 5.Activates microbial barriers and improve intestinal health.

### ●Directions for Use

1kg per ton of drinking water or feed.

●Shelf Life 24 months.

●Package 1kg per bag × 10 bags per bucket.



# PRODUCTS

# Zhongke Great Union



## ZK Rumen pro

Rumen synergist

### ●Main Ingredients

Bacillus subtilis, Saccharomyces cerevisiae, cellulase, xylanase, etc. Starch as carrier.

### ●Function and Features

- 1.Promotes rumen development, expands rumen capacity, increases feed intake, fully unleash the potential for fattening.
- 2.Relieves rumen digestion problems, such as flatulence, acidosis, diarrhea, and rough faces.
- 3.Promotes the reproduction of the beneficial rumen microorganisms, and inhibits pathogenic microorganisms, improving immunity with long term supplementation.
- 4.Helps absorb the nutrients in feed, increases concentration of microbial proteins, and improves feed availability.
- 5.Strengthens rumen functions, increases rumination frequency, and improves the digestion and absorption of the macromolecular nutrients in forages, saving costs.

### ●Usage and Dosage

- 1.Directly mixed with feed.
- 2.1 kg per ton of compound feed.
- 3.Applicable for pregnancy animals.

### ●Shelf Life 24 months.

### ●Package 1kg per bag × 15 bags per bucket.



## Ruminant CP

Improving reproductive performance

### ●Main Ingredients

Imported yucca powder, dl- $\alpha$ -tocopherol,  $\beta$ -Carotene, organic trace elements, beneficial microorganisms (Bacillus subtilis, Saccharomyces cerevisiae, Lactobacillus acidophilus, etc.), lysozyme, yeast-selenium, etc.

### ●Function and Features

- 1.Rich of imported yucca powder. Reduces ammonia concentration in gastrointestinal and reproductive systems, decreases urea nitrogen concentration in blood and milk, and improves postpartum recovery of female ruminants.
- 2.Rich of dl- $\alpha$ -tocopherol. Improves reproductive performance, increases conception rate, reduces the occurrence of embryo death, miscarriage, retained placenta, and mastitis, and increases ejaculation volume, semen concentration, and sperm motility.
- 3.Increases milk production, improves milk quality, and extends peak lactation period.
- 4.Improves health condition of young ruminants, promotes rapid fetal growth and skeletal development, and increases birth weight, survival rate, and strong offspring.
- 5.Reduces pica.
- 6.Safe, highly effective, antibiotic-free, residual-free, and usable for pregnancy ruminants.

### ●Usage and Dosage

- 1.Directly mixed with feed. Long time use.
- 2.1kg to 500kg -1000kg of feed.

### ●Shelf Life 24 months.

### ●Package 1000g per bag × 15 bags per bucket.



## Clean pica

Eliminating Pica

### ●Main Ingredients

Copper, iron, manganese, zinc, phosphorus, calcium, selenium, cobalt chloride, dicalcium phosphate, sodium selenite, sodium chloride, multi-amino acids, multi-vitamins and yeasts, etc.

### ●Function and Features

- 1.Quickly supplements the needed vitamins, trace elements, and amino acids, improving health and fitness.
- 2.Reduces pica. Reduces dyspepsia, tastes abnormality, and pica caused by lacks of calcium, phosphorus, sodium, potassium, etc. Quickly adjusts body metabolic balance, corrects taste disorders, and eliminates other bad habits.
- 3.Enhances immunity. Improve microbiota composition in digestive tract, promotes immunity functions, improves disease resistance and anti-stress, and effectively reduces the incidence of chewing weakness, howling, convulsions, excessive sweating, restlessness, irritability, difficult labour, miscarriage, retained placenta, rickets, anemia, rickets, milk fever, white muscle, and other diseases.
- 4.Promotes rumen functions. Improves rumen microbiota, rumen fermentation and feed availability.

### ●Usage and Dosage

- 1.For feed and drinking water.
- 2.500g per ton of drinking water. 1000g per ton of compound feed.

### ●Shelf Life 24 months.

### ●Package 500g per bag × 35 bags per bucket.



## Hoof HTH

Limbs and Hooves Health

### ●Main Ingredients

Saccharomyces cerevisiae, zinc methionine, biotin, vitamin C, magnesium oxide, sodium bicarbonate, glucose oxidase, potassium chloride, copper glycine, manganese methionine, etc.

### ●Function and Features

- 1.Quickly supplements nutrients, promotes glial cell keratinization, maintains integrity of epithelial tissue structure, and accelerates the repair of limbs and hooves injuries in livestock.
- 2.Improves the hardness, compressibility and strength of hoof shell, reduces keratin softening, cracked hooves, cracked foot pads, and maintains the integrity of the hooves in livestock.
- 3.Stimulates production of rumen microorganisms, adjusts rumen fermentation for acids excretion and detoxification, reduces fore stomach atony and rumen accumulation, and improves the digestion and absorption of nutrients.
- 4.Regulates acid-alkaline balance in rumen, buffers pH value, recovers rumen functions quickly, and mitigates salivation, loss of appetite, and toxic shock caused by gastric acidosis.
- 5.Improves growth performance, significantly extends the useful life of breeding animals and cows.

### ●Usage and Dosage

- 1.For mitigation of acidosis and laminitis, 1kg to 100kg of concentrated feed. Administer 10g of dissolved water twice a day for 3-5 days per 100kg of body weight.
- 2.For daily health care, 1kg per ton of feed.
- 3.For repairment of hoof trauma, 1:1 dilute and completely spray or soak the hoof or wound surface three times a day for three consecutive days, or extend it appropriately.
- 4.Applicable for pregnancy animals.

### ●Shelf Life 24 months.

### ●Package 500g per bag × 35 bags per bucket.





## Lian Ease

Anti fighting and anti stress

### ●Main Ingredients

Glucose oxidase,  $\gamma$ -amino butyric acid, organic trace elements, corn starch.

### ●Function and Features

- 1.Reduces energy consumption, and avoids losses caused by fighting and climbing.
- 2.Reduces stress responses caused by immunity, high temperature and diseases, suppresses glucocorticoid levels, and decreases the production of oxidative factors.
- 3.Strongly induces feeding, enhancing animal digestion and absorption function, and accelerating growth rate.
- 4.Improves cavity quality, elongates the skeleton, increases protein synthesis, and improves lean meat percentage.

### ●Directions for Use

1kg per ton of drinking water or feed.

### ●Shelf Life 24 months.

●Package 1kg per bag  $\times$  10 bags per bucekt.



## ZK Enzyme

Specially designed for ruminants

### ●Main Ingredients

Xylanase, cellulase, proteinase,  $\beta$ -mannanase, yeast culture, etc.

### ●Function and Features

- 1.With xylanase and cellulase, helps rumen microorganisms degrade non-starch polysaccharides in feed.
- 2.Supplements the insufficient homologous enzymes in rumen, breaks plant cell wall, improves the contact of nutrients and digestive enzymes, and fully degrades NSP in feed.
- 3.Improves rumen internal environment, provides fermentable energy, decreases rumen pH value, increases concentrations of volatile fatty acids and ammonia, effective stimulates the reproduction of beneficial rumen microorganisms, and improves the synthesis of bacterial proteins in rumen.
- 4.Increases the digestibility of roughages, improves milk production and quality.
- 5.Improves feed palatability, increases daily weight gain, and shortens the fattening cycle of beef cattle.
- 6.Improves silage quality, decreases pH and increases lactic acid concentration.

### ●Usage and Dosage

- 1.For ruminant.
- 2.500g per ton of compound feed.
- 3.250g per ton of silage.
- 4.Applicable for pregnancy period.

### ●Shelf Life 24 months.

●Package 500g per bag  $\times$  30 bags per bucket.



## ZK Probiotic

Water-Soluble Hyper Concentrated Probiotics

### ●Main Ingredients

Bacillus subtilis, Saccharomyces cerevisiae, Lactobacillus acidophilus, etc. Glucose as carrier.

### ●Function and Features

- 1.Optimal composition of probiotic strains, and high levels of probiotic number.
- 2.Stimulates the reproduction of intestinal beneficial microorganisms, inhibits the growth of pathogenic microorganisms, reduces the incidence of intestinal diseases, decreases the antibiotic use, and saves the treatment costs.
- 3.Improves feed intake, promotes digestion and adsorption, increases daily weight gain, and decreases nutritional diarrhea.
- 4.Significantly decreases ammonia concentration in pens or houses, and improves raising environments.
- 5.Supplements probiotics, degrades organics, purifies water quality, and maintains ecological balance of aquaculture water

### ●Usage and Dosage

- 1.For livestock, poultry and aquaculture.
- 2.500g per ton of drinking water, 1000g per ton of compound feed.  
For aquaculture, 100g per acer of pond.
- 3.Applicable for pregnancy animals.

### ●Shelf Life 24 months.

●Package 500g per bag  $\times$  35 bags per bucket.



## Organic trace elements

Water-soluble, high absorption

### ●Main Ingredients

Zinc-Methionine, Ferrous-Glycine, Selenium yeast, Calcium-Iodate, Chromium pyrrole carboxylate, Copper-Glycine, Manganese-Methionine, Cobalt sulfate, etc.

### ●Function and Features

1. High absorption and utilization rate, good stability.
2. High bio-availability.
3. Good palatability, less side effects.
4. Reduces the residue of heavy metals and trace elements in feces, reducing the environmental pollution.

### ●Usage and Dosage

1. For livestock, poultry, fur animals, and aquaculture.
2. 250g - 500g per ton of drinking water, or 500g to 1 ton of feed.
3. For aquaculture, 100g directly sprinkled to 8-10 acres.
4. Applicable for pregnancy animals.

### ●Shelf Life 24 months.

●Package 500g per bag  $\times$  30 bags per bucket.



# PRODUCTS

## Zhongke Great Union



### Lean Meater

Defat, lean meat

#### ●Main Ingredients

Rumen bypass guanidine acetic acid, lysin, methionine, etc. Starch as carrier.

#### ●Function and Features

- 1.Increases lean meat percentage.
- 2.Improves body shape, widening back and plumping buttocks.
- 3.Improves meat color and meat quality.
- 4.Improves weight gain rate.
- 5.Safe and highly effective.

#### ●Usage and Dosage

- 1.Directly mixed with feed.
- 2.1kg per ton of compound feed.
- 3.Applicable for pregnancy animals.

#### ●Shelf Life 24 months.

#### ●Package 1kg per bag × 15 bags per bucket.



### Piglets nurture

More milk, more new born, more healthy piglets

#### ●Main Ingredients

25-OH-D3,  $\beta$ -carotene, yucca, vitamin E, organic chromium, selenium-yeast, carrier, etc.

#### ●Function and Features

- 1.Increases milk production.
- 2.Promotes sow estrus, ovulation, and conception.
- 3.Improves the semen quality of boar.
- 4.Improves the survival rate and strong offspring rate in piglets.

#### ●Usage and Dosage

- 1.250g to 250kg - 500kg of feed.
- 2.Consult customer service or local sales service center for specific usage information.

#### ●Shelf Life 24 months.

#### ●Package 250g per bag × 30 bags per bucket.



### Organic acids

Anti-diarrhea, promoting growth

#### ●Main Ingredients

Citric acid, lactic acid, fumaric acid, essential oils, organic trace elements, vitamins, enzymes, corn starch as carrier.

#### ●Function and Features

- 1.Adjusts pH in drinking water and feed, activates proenzyme, improves the digestion and absorption of protein or other nutrients.
- 2.Inhibits the growth and reproduction of pathogens, such as E.coli, Salmonella, and Pasteurella, reducing diarrhea.
- 3.Decreases ammonia concentration in pig house, improves indoor environment, and reduces the incidence of respiratory diseases.
- 4.Reduces virus infection and improves antivirus capability.
- 5.Improves the nutrient digestion of young animals, reduces weaning stress and diarrhea, and increases survival rate.
- 6.Clears the biofilm in waterline, ensures waterline smooth, and reduces the incidence of digestive diseases.
- 7.Anti-molds, anti-corrosion, anti-oxidation, and extends the shelf lives of feeds and drinking water.

#### ●Usage and Dosage

1kg to 2000kg-3000kg of drinking water. 1kg to 1000kg-2000kg of feeds. For waterline clearance, 1kg to 200kg of water in waterline, evacuate after 2-3 hours.

#### ●Shelf Life 24 months.

#### ●Package 1kg per can × 8 cans per box.



### ZK Ca

Water soluble calcium granules

#### ●Main Ingredients

Multi-amino acids, multi-vitamins, calcium gluconate and carrier.

#### ●Function and Features

1. Easier to be absorbed.
2. Multi-vitamins improve the calcium absorptivity.
3. Reduces the symptoms caused by calcium deficiency.

#### ●Usage and Dosage

1. For livestock, poultry, fur animals and aquaculture.
2. 250g-500g per ton of drinking water, or 500g-1000g per ton of compound feed.
3. Applicable for pregnancy animals.

#### ●Shelf Life 24 months.

#### ●Package 500g per bag × 30 bags per bucket.





## Enrich blood

Organic iron, quick absorption

### ●Main Ingredients

Glycine iron, methionine iron, ferrous fumarate, zinc glycinate etc., and starch as carrier.

### ●Function and Features

1. Increases the hemoglobin content in young animals, reduces iron deficient anemia, and improves growth performance.
2. Increases the myoglobin content, and improves carcass quality.
3. Strengthens immunity, and improves disease resistance.
4. Reduces piglets diarrhea rate.
5. Improves reproduction rate of breeding animals by effectively passing through the placental and breast barriers.
6. Improves eggshell color, and reduces egg breaking rate.

### ●Usage and Dosage

Per ton of compound feed

1. For piglets, 1000g-1500g. For growing and fattening pigs, 500g-1000g. For pregnant and lactating sows, 1000g-2000g.
2. For ruminant, 300g-500g.
3. For egg-laying hens, 300g-500g. For broilers, 200g-400g.
4. For aquaculture, 500g.

Per ton of drinking water

1. For piglets, 500g-1000g. For growing and fattening pigs, 250g-500g. For pregnant and lactating sows, 500g-1000g.
2. For ruminant, 150g-250g.
3. For egg-laying hens, 150g-250g. For broilers, 100g-200g.

●Shelf Life 24 months.

●Package 500g per bag × 35 bags per bucket.



## Summer Ease

Anti-heatstroke, Anti-stress

### ●Main Ingredients

Vitamin C, Taurine, Vitamin E, Vitamin B2, Organic acids, Mint, organic trace elements, Oral rehydration salts (ORS), Borneol, amino acids, carrier, etc.

### ●Function and Features

1. Heat relieving, anti-stress. Reduces the stress responses of startled herd, feed intake reduction, and death caused by heat, illness, excessive feeding density, poor ventilation, herd transfer, transportation, debeaking and vaccination.
2. Improves appetite and feed intake, reduces stress responses of decreased feed intake, slow weight gain, and decreased egg production caused by heat.
3. Supplementation of vitamin increases concentration of intracellular calcium ion, reduces the flow of creatine kinase from cells to plasma, and is beneficial for alleviating heat stress.
4. Organic acids including citric acid, fumaric acid, and succinic acid improve ATP formation, maintain acid alkaline balance in blood, and enhance immunity. Organic acids inhibit central nervous system, reduces heat-induced rapid pant, and reduces heat production.
5. Supplementation of organic trace elements including chromium prevents corticosteroid secretion, improve glucose utilization, effectively alleviating adverse reaction of immune system caused by heat stress.
6. Supplementation of ORS adjusts acid-alkaline balance and blood potassium concentration, preventing dehydration, and increases excretion, alleviating heat stress.

### ●Usage and Dosage

1. For livestock, poultry, fur animals, aquaculture.
2. 250g-500g per ton of drinking water, or 500g-100g per ton of feed.
3. For aquaculture, 100 g directly sprinkled to 8-10 acres.
4. Applicable for pregnancy animals.

●Shelf Life 24 months.

●Package 500g per bag × 35 bags per bucket.



## Sodium Selenite Vitamin E

Sodium Selenite Vitamin E

### ●Main Ingredients

Vitamin E and sodium selenite.

### ●Function and Features

1. Supplementation of vitamin E and selenium reduces various diseases caused by vitamin E or selenium deficiency.
2. Selenium helps protect vitamin E to be completely absorbed and utilized through the mucosa, increasing the efficiency of vitamin E.
3. Reduces non-estrus in sows, white diarrhea in piglets, rotting foot disease, nutritional liver necrosis, promotes the growth, and decreases FCR.
4. Increases survival rate of young poultry, and brightens the poultry feather.
5. Increases the egg weight, egg laying rate, improves the eggshell hardness, and reduces the breaking rate.
6. Mitigates oxidation, protects cell membrane, improves sexual gland development, promotes conception and prevents miscarriage.
7. Improves immunity and reduces morbidity.

### ●Usage and Dosage

1. Mix evenly in feed.
2. 500 g - 1000 g per ton of compound feed.
3. Applicable for pregnancy animals.

●Shelf Life 24 months.

●Package 500g per bags × 40 bags per bucket.



## Vitamin B

Compound Vitamin B

### ●Main Ingredients

Vitamin B1, niacinamide, calcium pantothenate, vitamin B6, etc.

### ●Function and Features

1. Reduces stress responses.
2. Improves immune performance.
3. Enhances mucosal barrier and intestinal health of animals.
4. Promotes the metabolic function of protein, amino acids and energy in feed.
5. Promotes nutrition absorption and improves growth performance.
6. Increases appetite and feed intake.

### ●Usage and Dosage

1. 1kg to 1000-2000kg of feed. 1kg to 2000-3000kg of drinking water.
2. Applicable for pregnancy animals.

●Shelf Life 24 months.

●1kg per bag × 10 bags per bucket.





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