



武汉科泰生化科技有限公司

WHHAN CHORTLE BIO-CHEM TECHNOLOGY CO., LTD

Hydrolyzed Wheat Gluten (HWG)

A free-flowing easily soluble powder, designed for rapid incorporation into animal feeds

An alternative to the use of animal protein sources (plasma or fish) as a component in creep feed and pre-starter formulae, with a strong preventative effect on diarrhea

A safe, healthy, and highly economical protein source for young animals

Hydrolyzed Wheat Gluten (HWG), produced by Wuhan Chortle Bio-Chem Technology Co. Ltd (www.whcbc.com), is highly water-soluble and consists of low molecular mass proteins, peptides, and amino acids. It features high protein content (>80%), high digestive value (>96%), high water solubility (>85 g), high glutamine content (~30%), high peptide content (36.8% of molecular weight below 500 Dalton), high quality (complies with food grade standard), and low ash content (<1.2%). It is specifically favorable for use in the feed formulae for piglets, calves, lambs and some pets. The incorporation of HWG in the formulae can help in:

- Increasing *absorbability*
- Decreasing *diarrhea*
- Improving *meat palatability*
- Increasing *meat yield*.



武汉科泰生化科技有限公司

WHHAN CHORTLE BIO-CHEM TECHNOLOGY CO., LTD

Because the proteinase level of young animals is not fully developed, the response to weaning often results in digestive disorders. Therefore, young animals need special protein with high digestibility to protect the intestinal membrane and promote the development of microflora and enzymatic systems. In premium quality feeds, plasma and fish powder are often used as protein source. However, these are forbidden in some countries for use in feeds for young animals because of the potential for transmission of foodborne infectious diseases, and processing instability. HWG is considered to be an ideal replacement for plasma and fish powder in feeds for young animals.

Nutritional composition of HWG

Dry matter	95%
Protein	80%
Fat	5.2%
Starch and sugars	6.8%
Fiber	0.5%
Lysine	1.6%
Threonine	2.6%
Methionine + Cysteine	4.1%
Tryptophan	0.9%
L-glutamine	30.0%
Energy	8.5 MJ/Kg



武汉科泰生化科技有限公司

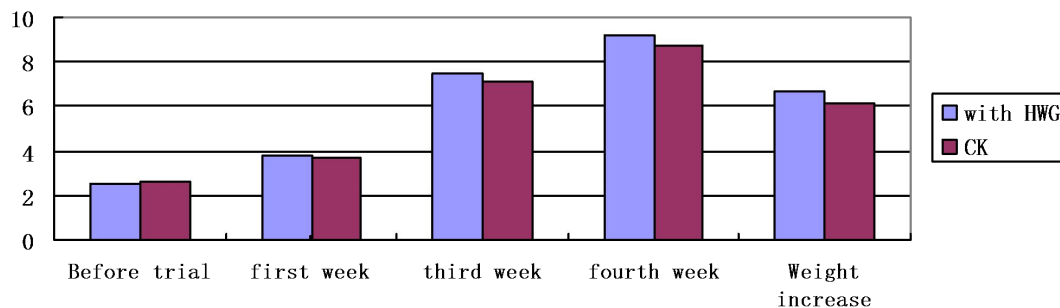
WHHAN CHORTLE BIO-CHEM TECHNOLOGY CO., LTD

Product features

- High protein digestibility (up to 96%) makes it an ideal replacement for animal protein
- High glutamine content is favorable for animal development, especially for young animals
- Protects intestinal membranes, promotes intestinal epithelial cell development, improves the digestibility of weaning piglets, and significantly decreases diarrhea
- Promotes synthesis of immunoglobulin, and improves intestinal immune system.

Experimental Trial Results

Comparative trials were conducted at South Lake Farm of Wuhan Agri High-Tech Group (Hubei, China) in 2006-2007. HWG (5%) was added to the feed of test piglets, while 2.5% fish powder + 2.5% concentrated potato protein was used for the control piglets. After one month, the calculated daily growth rate (weight) of test piglets was 9.83% higher than in the control (see chart below).





武汉科泰生化科技有限公司

WHHAN CHORTLE BIO-CHEM TECHNOLOGY CO., LTD

HWG effect on piglets

We also did a trial on 500 newly born piglets from 48 hybrid sows. It was found that 8% HWG could replace 5% fish powder + 3% plasma protein without statistical difference in growth. It was also demonstrated that 8% HWG could replace 8% plasma protein with better results in increasing piglet weight and decreasing incidence of diarrhea.

Another separate trial also showed that adding HWG to feed of lactating sow could significantly increase milk production, reduce body weight loss, and improve reproductive and total productivity.

Wuhan Chortle Bio-Chem Technology Co., Ltd.

Address: Building 16, area 1, Gongnong Bio-Park, No. 888, Gaoxin Avenue, Donghu (East Lake) Development Zone, Wuhan 430206, PR China

Tel: +86-27-87455255 or +86-13807153159

Fax: +86-27- 87455255

Web: www.whcbc.com

Email: whcbc@sohu.com 13396885@qq.com