



2023年第2期总377期

## 动物营养专题

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## ▶ 前沿资讯

### 1. 卓创资讯：2023年生猪产业上下游盈利或双增

**简介：**2022年生猪出栏量增加，导致生猪价格整体下降，从而影响生猪自繁自养盈利同比缩减。虽然生猪采购成本降低，但终端需求低迷，白条猪肉销售压力较大，屠宰企业盈利并未有改善。进入2023年，生猪供应或有所下降，且终端需求较2022年有提升空间，或支撑养殖与屠宰两端的盈利提升。2022年生猪价格同比下跌养殖盈利降幅偏大。2022年全国生猪交易均价呈先涨后降的走势，年内最低点为3月18日的11.70元/公斤，最高点为10月19日的28.62元/公斤，价格最大波动幅度为144.62%。截至12月23日，2022年生猪年均价为18.64元/公斤，比去年同期降幅6.24%。主要原因是2022年生猪供应继续增加。与生猪价格走势相似，2022年全国生猪自繁自养盈利呈先涨后降的走势。截至12月20日，2022年生猪自繁自养盈利年均为470.97元/头，同比降幅22.79%。但与生猪价格相比，生猪自繁自养盈利同比降幅偏大，根本原因是饲料成本提升。据卓创资讯监测数据显示，截至12月19日，2022年生猪饲料年均价为3276.03元/吨，为近五年中的最高水平，同比涨幅7.67%。受生猪养殖盈利下降的影响，养殖端年内生猪出栏节奏较2021年加快、补栏积极性下降，从而导致年内生猪交易均重的下降和仔猪价格的下降，2022年全国生猪交易均重为122.08公斤，同比降幅4.08%；7公斤仔猪年均价为460.00元/头，同比降幅34.96%。

**来源：**中国饲料行业信息网

**发布日期：**2022-12-29

**全文链接：**

<http://agri.ckcest.cn/file1/M00/03/47/Csgk0YgE-OGAQAWNABAmW9jmvdA992.pdf>

### 2. 全国十大新建楼房猪场

**简介：**过去三年多，高额的非瘟红利刺激各大猪企疯狂扩张，截至2022年6月，全国新建生猪产能达到了1.3亿头。在这一轮产能扩充中，资本涌入，政策加持，加速了楼房养猪在国内的兴起，牧原、唐人神、中新开维等一批企业的楼房猪场已建成投产，“年出栏210万头；有28栋楼房；26层高&hellip;&hellip;”，既赚足了眼球，也为行业回答“楼房猪场是否可行”这一问题提供了实践参考。以下为您盘点备受关注的十大新建楼房猪场项目（按产能从大到小排序）。

**来源：**国际畜牧网

**发布日期：**2022-12-27

**全文链接：**

[http://agri.ckcest.cn/file1/M00/10/19/Csgk0G0uQPSAE\\_HKAA7igNOAFuA176.pdf](http://agri.ckcest.cn/file1/M00/10/19/Csgk0G0uQPSAE_HKAA7igNOAFuA176.pdf)

## ▶ 学术文献

### 1. miRNA介导应激幼畜肠道损伤的研究进展

**简介：**随着畜牧业的飞速发展，集约化饲养、幼畜早期断奶策略应运而生，同时各种应激（如：热应激、冷应激、断奶应激、运输应激、氧化应激）增加，导致免疫系统还未完全建立的幼畜肠道损伤，严重时危及生命。miRNA是一类可调控基因表达的内源性非

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编码单链小分子RNA，是基因家族的重要成员，参与机体内部几乎所有的信号通路，能够调控肠上皮细胞的增殖与分化，介导肠黏膜屏障损伤。本文综述了应激对肠黏膜屏障功能的影响，miRNA对幼畜肠黏膜屏障功能的调控作用及可能作用途径。同时，综述了miRNA参与外源添加剂作用的模式，为营养素靶向干预调控幼畜肠道免疫功能提供理论依据，对提高幼畜培育具有重要意义。

来源：中国知网

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全文链接:

<http://agri.ckcest.cn/file1/M00/10/19/Csgk0G0uRX2AbcdGABDLpq3Ujms745.pdf>

## **2 . Weaning diet supplemented with health-promoting feed additives influences microbiota and immune response in piglets challenged with Salmonella (添加健康促进饲料添加剂的断奶日粮影响沙门氏菌攻击仔猪的微生物群和免疫反应)**

简介: The aim of this study was to evaluate the potential of micronutrients and feed additives to modulate intestinal microbiota and systemic and mucosal immune responses in weaned pigs infected with Salmonella. At weaning, 32 litters of 12 piglets each were allocated to four dietary treatments: 1) control diet (CTRL), 2) CTRL supplemented with chlortetracycline (ATB), 3) CTRL supplemented with a cocktail of feed additives (CKTL); and 4) CKTL diet containing bovine colostrum in replacement of spray-dry animal plasma (CKTL+COL). The CKTL supplement included cranberry extract, encapsulated carvacrol and yeast-derived products and an enriched selenium and vitamin premix. Three weeks after weaning, four pigs per litter were orally inoculated with Salmonella Typhimurium DT104. Half of them were euthanized 3 days post-infection (dpi) and the other half, 7 dpi. The expression of IL6, TNF, IL8, monocyte chemoattractant protein 1 (MCP1), IFNG, cyclooxygenase 2 (COX2), glutathione peroxidase 2 (GPX2) and  $\beta$ -defensin 2 (DEFB2) showed a peaked response at 3 dpi ( $P < 0.05$ ). Results also revealed that DEFB2 expression was higher at 3 dpi in CTRL and CKTL groups than in ATB ( $P = 0.01$  and  $0.06$ , respectively) while GPX2 gene was markedly increased at 3 and 7 dpi in pigs fed CKTL or CKTL+COL diet compared to CTRL pigs ( $P < 0.05$ ). In piglets fed CKTL or CKTL+COL diet, intestinal changes in microbial communities were less pronounced after exposure to Salmonella compared to CTRL and progressed faster toward the status before Salmonella challenge (AMOVA  $P < 0.01$ ). Furthermore, the relative abundance of several families was either up- or down-regulated in pigs fed CKTL or CKTL+COL diet after Salmonella challenge. In conclusion, weaning diet enriched with bovine colostrum, vitamins and mixture of feed additives mitigated the influence of Salmonella infection on intestinal microbial populations and modulate systemic and intestinal immune defences.

来源：中国知网

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全文链接:

<http://agri.ckcest.cn/file1/M00/03/47/Csgk0YgE-iSATjAcADtNGvRFM3Y416.pdf>

## **3 . Full-fatted;Hermetia illucens;larva as a protein alternative: effects**

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**on weaning pig growth performance, gut health, and antioxidant status under poor sanitary conditions (全脂；兵虻；幼虫作为一种蛋白质替代品：在恶劣卫生条件下对断奶仔猪生长性能、肠道健康和抗氧化状态的影响)**

简介： We investigated the effectiveness of full-fatted black soldier fly larvae (BSF) supplementation on growth performance, gut health, and antioxidant capacity of weaned pigs under poor sanitation. Eighty 28-d-old piglets were divided into four groups (five replicates of four pigs each): control group comprising pigs under hygienic conditions without BSF addition (PC); control group comprising pigs under poor sanitary conditions without BSF addition (NC); and BSF6 and BSF12 groups comprising pigs supplemented 6% and 12% BSF, respectively. Pigs were fed the diets in two feeding programs: Phase I (114 d) and II (1528 d) containing 3,300 and 3,265 kcal/kg of metabolisable energy and 22.5% and 21.5% of crude protein, respectively. Compared to the NC, the BSF6 and BSF12 increased body weight and average daily feed intake in Phase II ( $P < 0.05$ ). The BSF exhibited greater nutrient digestibility, immunoglobulin A and glutathione peroxidase levels, cecum weights, duodenal villus height, duodenal villus-to-crypt depth ratio, and caecal *Lactobacillus* spp. ( $P < 0.05$ ). Furthermore, the BSF6 and BSF12 showed significantly decreased diarrheal rate, tumour necrosis factor- $\alpha$ , small intestine weight, caecal pH, and duodenal crypt depth unlike the NC ( $P < 0.05$ ). The BSF12 had lower malondialdehyde concentration and *Escherichia coli* than the NC ( $P < 0.05$ ). In conclusion, the addition of 12% BSF improved growth performance and nutrient utilisation, thereby reducing gut inflammation and modulating antioxidant capacity in post-weaning piglets.

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<http://agri.ckcest.cn/file1/M00/10/19/Csgk0G0uRzWAI4i3ABInUSkfNwI336.pdf>