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## 动物营养专题

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## ▶ 前沿资讯

### 1. 阿根廷签署首批输华猪肉合同

**简介:** 阿根廷《国民报》7月23日报道,阿首批输华猪肉合同于日前完成签订,阿猪肉联营集团组织18家企业对华出口猪肉,首批输华猪肉总量约300吨。报道称,阿中于去年4月签订两国猪肉双向出口议定书。目前中国正遭受非洲猪瘟影响,预计中方将进口470万吨猪肉,以缓和目前猪肉供应不足状况。报道预计,2019年阿根廷猪肉输华总量将超过1.8万吨。据悉,2018年阿猪肉联营集团共出口猪肉5000吨,其中95%销往俄罗斯。阿猪肉联营集团负责人表示,首批输华猪肉将于今年8月装船发运,集团将持续提高猪肉产能并扩大向中国出口的份额,以期在中国市场占据一席之地。

**来源:** 食品伙伴网

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**全文链接:**

<http://news.foodmate.net/2019/07/527602.html>

### 2. 2019上半年全国9省生猪出栏量汇总

**简介:** 截止到7月22日,全国大部分省份已纷纷公布2019上半年经济运行数据,其中包含了畜牧业运行数据,特摘录整理各省上半年生猪出栏变化,供参考。全国生猪出栏同比下降6.2%:2019上半年,全国禽蛋产量同比增长3.6%,牛奶产量增长1.7%;猪牛羊禽肉产量3911万吨,下降2.1%,其中,牛肉、羊肉和禽肉产量同比分别增长2.4%、1.5%和5.6%,猪肉产量下降5.5%。生猪出栏量31346万头,同比下降6.2%,生猪存栏量34761万头,同比下降15%。北京生猪出栏同比下降76.7%:2019上半年,北京禽蛋产量4.5万吨,同比下降22.7%,牛奶产量14.5万吨,同比下降12.5%,生猪出栏量20.7万头,同比下降76.7%,生猪存栏数12.5万头,同比下降87.2%。湖南生猪出栏同比下降8.7%:2019上半年,湖南省生猪出栏2724.60万头,同比减少259.62万头,下降8.7%;生猪存栏3267.8万头,减少399.76万头,下降10.9%;能繁母猪存栏312.1万头,减少55.07万头,下降15.0%。其它畜禽养殖则有增长,上半年全省牛出栏82.2万头,增加3.06万头,增长3.9%;家禽出栏23321.1万羽,增加2177.76万羽,增长10.3%。湖北生猪出栏同比下降8.3%:2019上半年,湖北省生猪出栏1897.42万头,同比下降8.3%;猪肉产量152.65万吨,同比下降4.3%,出栏羊324.29万只,同比增长1%,出栏牛61.72万头,同比增长0.8%,出栏活家禽22832.58万只,同比增长8.8%。禽蛋产量85.95万吨,同比增长2.3%。安徽生猪出栏同比下降6.1%:2019上半年,安徽生猪出栏下降6.1%、降幅比一季度收窄2个百分点,家禽出栏增长9%、比一季度加快2.2个百分点。主要肉类产量164.4万吨、下降1.3%,其中,猪肉产量下降6.7%,收窄0.8个百分点;牛肉产量增长6.3%,与一季度持平;羊肉产量增长6.4%,提高0.3个百分点;禽肉产量增长9.3%,提高2.2个百分点。牛奶产量15万吨、增长9%。江西生猪出栏同比下降5.3%:2019上半年,江西牛出栏57.1万头,增长3.0%;牛肉产量6.6万吨,增长3.7%。羊出栏70.9万只,增长5.1%;羊肉产量1.2万吨,增长5.5%。家禽生产较快增长。家禽出栏2.3亿羽,增长8.5%;禽肉产量32.6万吨,增长8.3%;禽蛋产量24.2万吨,增长4.8%。受非洲猪瘟疫情影响,生猪产能持续下降。生猪出栏1491.0万头,下降5.3%;猪肉产量114.2万吨,下降4.6%。6月末,生猪存栏1185.5万头,下降19.4%,其中,能繁母猪存栏114.6万头,下降17.4%。四川生猪出栏同比下降4.1%:2019上半年,四川小春粮食总产量422.9万吨,同比增长0.8%,油料产量294.7万吨,增长1.4%。

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蔬菜及食用菌产量1831.5万吨,增长4.7%;生猪出栏2754.4万头,下降4.1%;牛羊禽出栏稳定增长,牛出栏133万头,增长3.5%;羊出栏813.2万只,增长3%;家禽出栏31280.9万只,增长9.7%。河南猪肉产量同比下降4.1%:2019上半年,河南省夏粮生产形势总体良好,产量749.08亿斤,增长3.6%,再初夏粮产量历史新高。畜牧业生产基本平稳。上半年,全省猪牛羊禽肉产量310.34万吨,下降1.3%,其中,牛肉、羊肉、禽肉产量同比分别增长1.7%、2.7%、9.1%,猪肉产量同比下降4.1%;禽蛋产量增长6.0%。甘肃生猪出栏同比增长1.5%:2019上半年,甘肃省猪存栏同比下降2.6%,出栏增长1.5%;牛存栏增长4.0%,出栏增长3.6%;羊存栏增长4.8%,出栏增长5.1%。全省肉类总产量52.1万吨,增长3.0%。贵州猪肉产量同比增长3.2%:2019上半年,贵州省猪牛羊禽肉产量105.78万吨,比上年同期增长3.7%。其中,猪肉产量84.55万吨,增长3.2%;牛肉产量9.33万吨,增长2.4%;羊肉产量2.03万吨,下降2.9%;禽肉产量9.87万吨,增长11.0%。禽蛋产量9.25万吨,增长9.3%。牛奶产量2.59万吨,增长9.8%。

来源: 中国饲料行业信息网

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全文链接:

<http://www.feedtrade.com.cn/livestock/counts/2019-07-23/2260984.html>

## ► 学术文献

### 1 . Effects of antibiotic-free pig rearing on ammonia emissions from five pairs of swine rooms in a wean-to-finish experiment (无抗生素养猪对5对猪舍断奶仔猪氨气排放的影响)

简介: Antibiotic use and ammonia ( $\text{NH}_3$ ) emissions during animal production are two environmental issues of worldwide concern. However, the role of antibiotics on  $\text{NH}_3$  emissions is still unknown. This study evaluated the effects of rearing pigs without antibiotics on  $\text{NH}_3$  emissions from a swine experimental building starting with 657 piglets during a wean-to-finish production cycle of 154 days. Pigs were reared in two groups of 10 rooms that were divided into five 2-room pairs (P1–P5) and fed in nine dietary phases. Each pair consisted of one room without antibiotics (no antibiotics in the diet, water, or injectable) and another room as a positive control. Control animals were fed diets containing carbadox-10 (phases 1–4), chlortetracycline (CTC, phase 5), lincomix (phases 6–7), and tylan 40 (phases 8–9). Temperatures in the pig living space and the under-floor manure pit headspace were continuously measured. Ventilation rates at all wall fans and pit fans were obtained by continuous monitoring. Ammonia concentrations in the wall and pit fan exhaust air, and in room inlet air were measured with two multi-gas monitors. Only days that contained at least 18 h of data each day were validated and used. The study generated 1337 room-days of valid data of  $\text{NH}_3$  emission rates, with a data completeness of 88.6%. Daily mean  $\text{NH}_3$  emission patterns demonstrated large variations between the paired rooms and among different pairs. Within the individual 2-room pairs, no  $\text{NH}_3$  emission differences were found in P1 (rooms 1 and 2,  $p = 0.34$ ) and P2 (rooms 3 and 4,  $p = 0.44$ ). Significant differences were found in P3–P5 ( $p < 0.01$ ). The antibiotic-free rooms emitted more  $\text{NH}_3$  from P3 and P4, but less  $\text{NH}_3$  from P5. However, the combined cycle mean  $\text{NH}_3$  emissions from the group of five antibiotic-free

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rooms and the group of five control rooms were  $41.6 \pm 10.5$  and  $39.4 \pm 10.6$  g d<sup>-1</sup> AU<sup>-1</sup> (mean  $\pm$  standard deviation. AU = 500 kg live body weight), respectively. Therefore, there was no statistical difference in combined cycle mean NH<sub>3</sub> emissions from rearing pigs with or without antibiotics (  $p = 0.78$ ). This study also revealed that experiments with multiple replicates and long NH<sub>3</sub> monitoring durations were necessary to avoid potential misinterpretation of experimental results.

来源: 中国知网

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全文链接:

<http://agri.ckcest.cn/file1/M00/06/8C/Csgk0F0-rBKAb1kaADZq2aeptI866.pdf>

## 2 . Evaluation of the optimal standardized ileal digestible valine:lysine ratio in lactating sow diets (泌乳母猪日粮中标准化回肠可消化缬氨酸赖氨酸最佳比例的评价)

简介: An experiment was conducted with 430 sows to evaluate the ideal standardized ileal digestible (SID) Val:Lys on sow and litter performance during an 18.6-d lactation period. The SID Val:Lys ratios measured were based on the previously published literature and then values above and below reported values. Sows were randomly allotted within parity block (parity 1, parity 2, and parity 3+) to one of five corn-soybean meal-based lactation diets formulated to contain different levels of SID Val:Lys (0.50, 0.62, 0.75, 0.88, and 1.00, respectively). All diets were formulated to be isocaloric (3.35 ME Mcal/kg) with 0.95% SID Lys and contained vitamins and minerals that exceeded recommendations (NRC, 2012). Experimental diets were given to sows from 112 d of pregnancy throughout the 23-d lactation period. Litters were standardized within 48 h after farrowing. Sows were fed with the Howema computerized feeding system that mixed the high and low diets to create the intermediate diets, weighed the feed for each sow and then delivered the feed to each individual feeding hopper to record daily sow feed intake during lactation. Data were analyzed as a randomized complete block design using the PROC MIXED procedure of SAS with sow as the experimental unit and treatment as a fixed effect and parity as the random effect. Results were considered significant at  $P \leq 0.05$  and considered a trend at  $P > 0.05$  and  $P \leq 0.10$ . Sow ADFI was not significantly different ( $5.2, 5.2, 5.2, 5.0,$  and  $5.4 \pm 0.15$  kg/d, respectively). On average, sows consumed  $\sim 45$  g of SID Lys per day. Sow wean to estrus ( $5.2, 4.7, 5.3, 5.5,$  and  $4.5 \pm 0.32$  d, respectively) was not different as the Val:Lys ratio changed. Increasing the Val:Lys ratio resulted in no differences ( $2.66, 2.64, 2.76, 2.61,$  and  $2.62 \pm 0.08$  kg;  $P > 0.10$ ) in average daily litter gain. There were no differences in sow weight loss or subsequent total born across the dietary treatments. Overall, increasing levels of SID Val:Lys did not change sow reproductive performance or piglet growth rate.

来源: 中国知网

发布日期: 2019-07-02

全文链接:

<http://agri.ckcest.cn/file1/M00/06/8C/Csgk0F0-rLqAIsbVAAHliZMp4zA184.pdf>

### 3. 几种仔猪肠道损伤模型的建立及肠道损伤生物标志物的研究进展

**简介:** 肠道不仅是所有营养物质消化吸收的最终场所,也是动物体内最大的免疫器官,是机体防御体系的第一道屏障,维护动物肠道健康对保障养猪生产至关重要。肠道是机体应激反应的中心器官,各种应激因素致使肠道结构损伤与功能紊乱,从而导致仔猪健康不良与生长受阻。因此,建立稳定可靠的肠道损伤模型是研究仔猪肠道损伤机制及营养干预的关键,本文主要介绍了本实验室成功建立的几种仔猪肠道损伤模型,筛选了几种肠道功能紊乱的标志性分子,为猪和人类的肠道功能障碍研究及营养干预提供参考。

**来源:** 中国知网

**发布日期:** 2019-06-28

**全文链接:**

[http://agri.ckcest.cn/file1/M00/06/8C/Csgk0F0-rSOAA1fpAAlic3KJ8\\_M800.pdf](http://agri.ckcest.cn/file1/M00/06/8C/Csgk0F0-rSOAA1fpAAlic3KJ8_M800.pdf)