



2018年第50期总164期

## 动物营养专题

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## ▶ 前沿资讯

### 1. 互联网巨头争相布局AI养猪 养殖业掀开崭新一页

**简介:** 北京11月27日消息 据中国乡村之声《三农中国》报道, AI, 也就是人工智能, 它和养殖看似毫无关联, 现在却成为了各方科技公司追逐的热点。华为推出了牛联网, 阿里、京东、网易正在研发让猪更舒服的养殖系统。据了解, 现在全国很多大中型的养猪场都已经过渡到信息化的阶段, 使用ERP系统, 也就是企业资源计划, 来记录饲料采购情况、产供销管理等。

**来源:** 央广网

**发布日期:** 2018-11-30

**全文链接:**

[http://country.cnr.cn/mantan/20181127/t20181127\\_524427743.shtml](http://country.cnr.cn/mantan/20181127/t20181127_524427743.shtml)

### 2. 中国大买美国12732吨猪肉

**简介:** 尽管中国在贸易中对原产美国的猪肉加征关税, 但仍在大量进口美国猪肉, 因高传染性猪瘟疫情席卷中国养猪业。美国农业部周四数据显示, 中国上周向美国发出了贸易战开始以来最大一笔猪肉订单。经纪商和贸易商认为, 这些采购活动暗示, 非洲猪瘟疫情正在让人担心最终出现猪肉供应短缺, 或将取代中美两国之间的贸易紧张形势。

“就好像说, 为什么要从敌人那里购买? 因为迫不得已,” 爱荷华州经纪公司U. S. Commodities的总裁Don Roose说。在与美国针锋相对的贸易战中, 中国已经对从美国进口的农产品征收报复性关税, 其中对美国猪肉征收的关税税率为62%。美国农业部称, 截至11月22日当周, 中国购买了3, 348吨今年付运的猪肉, 规模为从2月开始的当前销售季最大。数据显示, 中国还购买了9, 384吨明年付运的猪肉, 在当周对所有国家销售中占比为72%。加在一起, 上周美国对中国销售的猪肉规模创2017年4月以来最大, 这推动美国猪肉期货涨逾4%。

**来源:** 中国畜牧网

**全文链接:**

<http://www.chinafarming.com/axfwnh/2018/12/03/4212744502.shtml>

### 3. 明年巴西猪肉在中国市场销量将增长60%

**简介:** 巴西动物蛋白协会(ABPA)近日指出, 10月份巴西对中国出口的猪肉制品总量增长了8%, 虽然目前中国出现了非洲猪瘟疫情, 但专家指出, 中国市场消费的巴西猪肉不会受到影响, 反而会有所上涨。巴西网站“revistagloborural”11月29日报道, 荷兰合作银行(Rabobank)的分析师们也指出, 中国出现的非洲猪瘟疫情很可能会促进美国、加拿大以及巴西等国的猪肉出口。“我们的分析师对于经济形势作出了三种不同的分析。最乐观的看法是, 2019年中国的猪肉产量将下降2%到4%; 普通看法指出, 2019年中国猪肉的产量将下降6%到8%, 而最悲观的看法中, 中国的猪肉产量下降幅度将达到10%到15%。由于消费者的不安全感、猪肉价格以及供应的问题, 中国市场的猪肉消费量将会下降, 但中国消费者对于巴西猪肉的消费量并不会出现下降。” 荷兰合作银行的市场分析师说道。荷兰合作银行的分析师还预计, 2019年巴西猪肉的产量增长幅度将达到4%到5%。同时, 2019年中国市场的消费者消费的巴西猪肉与今年相比增长幅度甚至能够达到60%, 达到25.6万吨。而仅2018年前10个月, 中国消费者消费的巴西猪肉总量就达到了13.29

万吨，与2017年同期相比消费量增长了247%。

来源：国际畜牧网

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全文链接：

<http://agri.ckcest.cn/file1/M00/00/00/Csgk0VwF5faAIR8PAAJv8AjfQvA135.pdf>

#### **4 . EFSA highlights latest developments on African swine fever in Europe (欧洲食品安全局强调欧洲非洲猪瘟的最新发展)**

简介：EFSA has published an update on the epidemiological situation of African swine fever (ASF) in Europe. In the latest report, experts assess the effectiveness of different measures that can be taken when a case of ASF is detected in an area that was previously disease-free and is far from affected areas. Using a simulation model, they concluded that early detection coupled with the application of measures such as quick removal of carcasses and intensive hunting in the specially designated hunting areas increases the probability of eradication. They also observed seasonal peaks in the numbers of animals that tested positive and were found dead summer and winter for wild boar and summer for domestic pigs. The report calls for more research to understand the causes of the introduction of ASF in pig holdings and how this can be prevented. It also recommends control options for different scenarios such as in non-affected areas close to or far away from affected areas or where the disease has been present for more than one year.

来源：THE PIGSITE

发布日期：2018-11-30

全文链接：

<http://www.thepigsite.com/swinenews/45652/efsa-highlights-latest-developments-on-african-swine-fever-in-europe/>

### **学术文献**

#### **1 . Regulation of amino acid transporters in the mammary gland from late pregnancy to peak lactation in the sow (母猪妊娠晚期至哺乳高峰期乳腺氨基酸转运体的调节)**

简介：Background: Milk protein is crucial for milk quality in sows and health of newborn piglets. Plasma amino acids(AA)in sows are important precursors for milk protein synthesis in the mammary gland. In order to study the regulation of AA transported in sow mammary glands and possible underlying mechanisms, we measured the expression of genes coding for milk proteins, AA transporter expressions, and plasma AA concentrations in sows at three different physiological stages(D-17, D1 and D17 of lactation), and then further investigated the regulation of AA transport across the cell membrane by adaptive mechanisms using pig mammary epithelial cells(PMEC) as an in vitro model.PMEC were cultured in DMEM:F12 with 4 amino acid concentrations(0 × AA complex, 1 × AA complex, 5 × AA complex,and 25 × AA complex). Classes of AA complexes evaluated in this study included neutral AAs(L-Ala

+ L-Ser + L-Cys), acidic AAs(L-Asp, L-Glu) and neutral + basic AAs(L-Ala + L-Ser + L-Cys + L-Lys).Results: Our results indicated that m RNA expression of genes coding for milk protein( $\alpha$ s1-casein,  $\alpha$ s2-casein, $\beta$ -casein and  $\kappa$ -casein) increased significantly with the advance of physiological stage( $P < 0.05$ ), and plasma concentrations of most AAs including threonine, serine, glutamate, alanine, valine, cysteine, methionine, isoleucine and tyrosine were greater at D1 of lactation compared with D-17 and D17 of lactation( $P < 0.05$ ). Additionally, protein and gene expressions of AA transporters including excitatory AA transporter 3(EAAT3), alanine/serine/cysteine/threonine transporter(ASCT1) and sodium-coupled neutral AA transporter 1(SNAT2) were greater in lactating sow mammary glands compared with sow mammary glands in late pregnancy( $P < 0.05$ ). The m RNA expressions of SLC38 A2, SLC1 A1,SLC6 A14 increased significantly in the cell mediums supplemented with  $5 \times$  and  $25 \times$  of AA complexes compared with those cells cultured in DMEM/F12 cell medium( $P < 0.05$ ). The m RNA expressions of SLC38 A, SLC1 A4, and SLC6 A14 also increased in EBSS cell medium compared to DMEM/F12. However, only m RNA expression of SLC38 A decreased when AA complex was added into EBSS( $P < 0.05$ ).Conclusion: AA transportation was positively regulated in sow mammary glands with the advance of physiological stage from late pregnancy to peak of lactation and AA transporters in PMECs were adaptively regulated by changed AA concentrations.

来源: Journal of Animal Science and Biotechnology

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全文链接:

<http://agri.ckcest.cn/file1/M00/02/9E/Csgk0FwF5X2ATuDcAHmQriqSTg0497.pdf>