



2019年第30期总197期

动物营养专题

本期导读

▶ 前沿资讯

1. 饲料缓解剂研究在猪方面产生初步结果
2. 母猪疫苗接种对哺乳仔猪生产性能的影响
3. 上半年猪肉产量下降5.5%

▶ 学术文献

1. 富硒胞外多糖对断奶仔猪生长、抗氧化功能、肠道形态结构和抗菌肽表达的影响
2. 伊利石对仔猪生长性能、抗氧化和免疫功能及肠道形态的影响

中国农业科学院农业信息研究所

联系人：熊本海；郑姗姗；顾亮亮

联系电话：010-62816017

邮箱：agri@ckcest.cn

2019年7月29日

更多资讯 尽在农业专业知识服务系统：<http://agri.ckcest.cn/>

▶ 前沿资讯

1 . Feed mitigant study yields initial results in pigs (饲料缓解剂研究在猪方面产生初步结果)

简介：FFAR-funded study finds five commercially available feed additives may stop spread of swine viruses. Initial results of a Foundation for Food & Agriculture Research (FFAR) research grant, conducted by Pipestone Applied Research, show that five commercially available feed additives may stop the spread of deadly viral diseases in pigs, according to an announcement from FFAR. Dr. Scott Dee, research director of Pipestone Applied Research, presented the results of the first phase of this study during the National Pork Industry Conference in Wisconsin Dells, Wis., FFAR said. The study confirms that three diseases — porcine reproductive and respiratory syndrome (PRRS), porcine epidemic diarrhea virus (PEDV) and Seneca Valley A (SVA) — can spread through contaminated animal feed, FFAR reported. The study tested whether specific feed additives, or mitigants, can deactivate the viruses and reduce the spread of disease. Researchers introduced the three viruses into animal feed and then individually added five mitigants to the contaminated animal feed. The research team then tested the pigs at days 6 and 15 for the presence of the three viruses and evaluated the animals for signs of disease. Despite the presence of PRRS, PEDV and SVA in the feed, the mitigants protected almost all animals from becoming positive for infection by PRRS, PEDV and SVA and significantly reduced the number of animals that developed signs of disease, according to Dee. This study is one of the first to produce results in a research setting that replicates commercial conditions. FFAR said a second phase of the research later this year will test five additional mitigants to assess their effectiveness in protecting swine herds from PRRS, PEDV and SVA. A separate FFAR-funded grant at Kansas State University will build on this research to test whether the mitigants can be added to feed to protect against African swine fever. Scientists hope to understand how to control or even stop the spread of this deadly virus. FFAR announced earlier in July that Dee's team received the grant through its Rapid Outcomes from Agricultural Research program, which deploys research funding in response to emerging or unanticipated threats to the nation's food supply or agricultural systems. The grant is being matched by ADM Animal Nutrition, Anitox, Kemin Industries, PMI Nutrition Additives and the Swine Health Information Center.

来源：FeedStuffs

发布日期：2019-07-10

全文链接：

<https://www.feedstuffs.com/news/feed-mitigant-study-yields-initial-results-pigs>

2 . Impact of sow vaccination on piglet performance during lactation (母猪疫苗接种对哺乳仔猪生产性能的影响)

简介：A research group from Carroll shows there are safety concerns when vaccinating during lactation. Introduction: The optimum vaccination plan for sows against Parvovirus, Erysipelas and Leptospira is during lactation, thus preventing future infections during pregnancy.

更多资讯 尽在农业专业知识服务系统：<http://agri.ckcest.cn/>

Furthermore, the use of reproductive vaccines is common on most pig farms around the world due to the high prevalence of these pathogens amongst swine herds. The humoral immune response and difference in safety between commercial reproductive vaccines has already been reported, but the impact that these could have on sow feed intake, milk production and piglet performance up to weaning is still being evaluated. The aim of this study was to compare how the difference in safety between two reproductive vaccines can affect the production performance of sows and piglets during lactation period.

来源: The Pig Site

发布日期: 2019-07-03

全文链接:

<https://thepigsite.com/articles/impact-of-sow-vaccination-on-piglet-performance-during-lactation>

3. 上半年猪肉产量下降5.5%

简介: 7月15日, 国家统计局召开2019年上半年国民经济运行新闻发布会。今年上半年, 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%。据了解, 2018年上半年, 猪牛羊禽肉产量3995万吨, 同比增长0.9%; 其中, 猪肉产量2614万吨, 增长1.4%。换句话说, 今年上半年, 猪肉产量为2470万吨左右, 占全部猪牛羊禽肉产量约63%, 仍然是我国第一大消费肉类。

来源: 食品伙伴网

发布日期: 2017-07-15

全文链接:

<http://news.foodmate.net/2019/07/526416.html>

学术文献

1. 富硒胞外多糖对断奶仔猪生长、抗氧化功能、肠道形态结构和抗菌肽表达的影响

简介: 本试验旨在探究阴沟肠杆菌 (*Enterobacter cloacae*) Z0206所产胞外多糖 (EPS) 和富硒胞外多糖 (Se-EPS) 对断奶仔猪生长性能、抗氧化功能、肠道形态结构和抗菌肽表达的影响。选择体重相近的28日龄“杜×长×大”三元杂交断奶仔猪150头, 随机分为5组, 每组3个重复, 每个重复10头猪。对照 (CON) 组饲喂基础饲料, 亚硒酸钠 (Na_2SeO_3) 组饲喂基础饲料+0.30 mg/kg Na_2SeO_3 , Na_2SeO_3 +黄芪多糖 (APS) 组饲喂基础饲料+0.30 mg/kg Na_2SeO_3 +560 mg/kg APS, Na_2SeO_3 +EPS组饲喂基础饲料+0.30 mg/kg Na_2SeO_3 +560 mg/kg EPS, Se-EPS组饲喂基础饲料+560 mg/kg Se-EPS。试验期39 d。结果表明: 与 Na_2SeO_3 组相比, 饲料中添加Se-EPS显著提高了断奶仔猪的平均日增重 ($P < 0.05$), 显著降低料重比 ($P < 0.05$), 显著提高了血清总抗氧化能力 ($P < 0.05$), 显著降低了血清丙二醛含量 ($P < 0.05$)。与对照组相比, 饲料中添加 Na_2SeO_3 +EPS、Se-EPS显著提高了断奶仔猪空肠的绒毛高度以及绒毛高度/隐窝深度 (V/C) ($P < 0.05$), 饲料中添加Se-EPS显著提高了十二指肠中猪 β -防御素1 (pBD-1) 和空肠、回肠中猪 β -防御素2 (pBD-2) 的mRNA 相对表达量 ($P < 0.05$)。由此可见, 饲料中添加Se-EPS可提高断奶仔猪生长性能、抗氧化功能以及促进肠道内源抗菌肽的表达。

更多资讯 尽在农业专业知识服务系统: <http://agri.ckcest.cn/>

来源: 中国知网

发布日期:2019-07-03

全文链接:

<http://agri.ckcest.cn/file1/M00/06/89/Csgk0F0sQKKAUeT3AAUQiZ5hQ1k926.pdf>

2. 伊利石对仔猪生长性能、抗氧化和免疫功能及肠道形态的影响

简介: 本试验旨在研究饲料中添加伊利石对断奶仔猪生长性能、养分消化率、血清抗氧化和免疫功能、肠道形态及粪便氮素排放的影响。选取144头28日龄健康“杜×长×大”断奶仔猪[平均体重(7.27±0.89) kg],按完全随机区组设计分为3组,每组8个重复,每个重复6头猪(公母各占1/2)。对照组饲喂玉米-豆粕型基础饲料,试验组分别在基础饲料中添加2 000和4 000 mg/kg伊利石(替代等量的玉米)。试验期28 d。结果表明,与对照组相比:1)试验第1~14天和第1~28天,4 000 mg/kg伊利石添加组仔猪平均日增重和增重耗料比显著提高($P < 0.05$);试验第1~14天,4 000 mg/kg伊利石添加组仔猪腹泻率显著降低($P < 0.05$)。2)4 000 mg/kg伊利石组仔猪干物质、粗蛋白质和总能表观消化率在试验第1~14天显著提高($P < 0.05$),粗蛋白质表观消化率在试验第15~28天显著提高($P < 0.05$)。3)试验第14天,4 000 mg/kg伊利石添加组仔猪血清免疫球蛋白A和免疫球蛋白G含量、超氧化物歧化酶活性和总抗氧化能力(T-AOC)显著提高($P < 0.05$),血清丙二醛含量则显著降低($P < 0.05$);试验第28天,4 000 mg/kg伊利石添加组仔猪血清T-AOC显著提高($P < 0.05$)。4)4 000 mg/kg伊利石添加组仔猪空肠和回肠绒毛高度/隐窝深度(V/C)值显著升高($P < 0.05$),试验组回肠绒毛高度($P = 0.07$)和十二指肠V/C值($P = 0.06$)有升高的趋势。5)4 000 mg/kg伊利石添加组仔猪每千克体增重粪氮排放量在试验第1~14天显著降低($P < 0.05$),试验组仔猪在试验第15~28天每千克体增重粪氮排放量有降低的趋势($P = 0.06$)。综上,饲料添加4 000 mg/kg伊利石可显著提高断奶仔猪机体抗氧化和免疫功能,改善肠道形态,降低腹泻率,提高养分消化率,减少粪便氮素排放,促进仔猪生长。

来源: 中国知网

发布日期:2019-07-03

全文链接:

<http://agri.ckcest.cn/file1/M00/00/01/Csgk0V0sQDOAMkSJAASV8z9hFzk722.pdf>