



ISSN 1006-267X
CN 11-5461/S

动物营养学报

CHINESE JOURNAL OF ANIMAL NUTRITION

www.ChinaJAN.com



Vol.25 No.2
2013

万方数据

中国畜牧兽医学会
CHINESE ASSOCIATION OF
ANIMAL SCIENCE AND VETERINARY MEDICINE

动物营养学报

中文核心期刊

中国科技核心期刊

中国科学引文数据库来源期刊

英国 CAB Abstracts 收录期刊

美国 Chemical Abstracts 收录期刊

第 25 卷 第 2 期 2013 年 2 月

目 次

综述

- | | |
|---------------------------|------------------------|
| 231 胃肠营养化学感应及其生理效应 | 谭碧娥 印遇龙 |
| 242 精氨酸与动物摄食生理调节因子的关系 | 汪 超 黄 苇 谢 明 喻俊英
侯水生 |
| 248 反刍动物干物质采食量预测模型研究进展 | 丁耿芝 孟庆翔 |
| 256 南极磷虾在水产饲料中的应用 | 常 青 秦帮勇 孔繁华 于朝磊 |
| 263 水生龟鳖类糖代谢的研究进展 | 刘海燕 杨振才 |
| 268 荧光蛋白的研究进展与应用 | 高权新 王进波 尹 飞 马向明
施兆鸿 |
| 275 乳清浓缩蛋白在仔猪生产中的应用及其作用机理 | 詹黎明 郭吉余 吴 德 |

禽营养

- | | |
|--|--------------------------------|
| 281 饲料代谢能和可消化赖氨酸水平对 21 ~ 42 日龄肉仔鸡生长性能及血清生化指标的影响 | 杨桂芹 韩钰婧 张文克 刘国华
郑爱娟 |
| 289 饲料维生素 E 水平对 22 ~ 42 日龄黄羽肉鸡生长性能、免疫功能和抗氧化能力的影响 | 蒋守群 周桂莲 林映才 陈 芳
洪 平 阮 栋 |
| 299 43 ~ 63 日龄黄羽肉鸡钙需要量研究 | 洪 平 蒋守群 周桂莲 蒋宗勇
林映才 郑春田 陈 芳 |
| 310 饲料钙水平对 49 ~ 56 周龄黄羽肉种鸡繁殖性能和胫骨性能的影响 | 洪 平 周桂莲 蒋守群 阮 栋
陈 芳 |
| 319 低蛋白质补充氨基酸饲料对北京鸭生长性能、血清生化指标及粪氮含量的影响 | 李忠荣 陈婉如 叶鼎承 林 混
刘 景 |

协 办 单 位

(2013 年度, 排名不分先后)

国家奶牛产业技术体系

动物营养学国家重点实验室

上海美农生物科技股份有限公司

武汉新华扬生物股份有限公司

肇庆市华芬饲料酶有限公司

反刍动物营养

326	硒和维生素 E 对西门塔尔牛瘤胃发酵和尿嘌呤衍生物含量的影响	张拴林	袁 霞	徐亚光	程建国
		武晋孝	聂玉梅	黄应祥	杨致玲
334	热应激对奶牛瘤胃液微生物数量的影响	杜瑞平	温雅俐	姚焰础	江 山
		高 民			
344	妊娠后期营养限饲蒙古绵羊对其胎儿生长发育及血液生理生化指标的影响	张崇志	刘迎春	高 峰	曹 平
		侯先志	李士栋		

实验方法

350	不同粉碎粒度的饲料对滤袋法测定纤维物质含量的影响	田雨佳	曹志军	李胜利	史海涛
		杨 萌	徐晓锋		
356	利用高效液相色谱法同时测定瘤胃液中几种水溶性维生素	赵芸君	孟庆翔		

饲料营养

364	小麦型干酒糟及其可溶物在淮南麻黄鸡上能量及氨基酸代谢率的测定	夏伦志	吴 东	钱 坤	周 芬
		汪 丽			
372	肉鸡饲料中添加一水肌酸对骨骼肌肌酸吸收和代谢的影响	夏伟光	左建军	冯定远	
382	乳酸链球菌素、山梨酸钾和茶多酚复配对袋装液态饲料贮存特性的影响	何余湧	马 鹏	王仁华	刘晓兰
		陆 伟			
390	大豆黄酮对产蛋后期蛋鸡生产性能、血液指标和经济效益的影响	顾 欢	施寿荣	童海兵	邹剑敏
		王志跃			

饲料资源开发

397	大叶枸草粉替代苜蓿草粉、豆粕、玉米及混合精料对瘤胃体外发酵特性的影响	马美蓉	刘建新	杨 凡	
406	板栗总苞多酚提取工艺优化及其抗氧化性研究	石恩慧	郭凯军	李 红	谷明灿
		鲁 琳	贾昌喜		

研究简报

415	饲粮维生素 A 添加水平对 43 ~ 63 日龄黄羽肉鸡生长性能和抗氧化指标的影响	洪 平	蒋宗勇	蒋守群	周桂莲
		郑春田	林映才		
427	无氮饲粮法与饥饿法对测定扬州鹅内源性氨基酸排泄量的影响	蒋银屏	王志跃	周春江	杨海明
433	不同中性洗涤纤维水平饲粮对肉羊生长性能和营养成分表观消化率的影响	张立涛	李艳玲	王金文	崔旭奎
		孟宪锋	屠 焰	刁其玉	
441	昆明小鼠胃肠道钙离子跨膜吸收途径相关基因表达模式分析	杨 艺	莘海亮	夏先林	吴文旋
		李胜利			

CHINESE JOURNAL OF ANIMAL NUTRITION

Chinese Core Journals

Abstracted in CAB Abstracts and Chemical Abstracts

Volume 25 Number 2 February 2013

CONTENTS

REVIEW

- 231 Gut Nutrient Chemosensing and Its Physiology Effects TAN Bi'e, YIN Yulong
242 Interaction of Arginine and Ingesting Regulatory Factors in Animal WANG Chao, HUANG Wei, XIE Ming, YU Junying, HOU Shuisheng
248 Research Advances in Prediction Models of Dry Matter Intake in Ruminants DING Gengzhi, MENG Qingxiang
256 Application of Antarctic Krill in Aquatic Feed CHANG Qing, QIN Bangyong, KONG Fanhua, YU Chaolei
263 Research Advances in Carbohydrate Metabolism in Aquatic Turtles LIU Haiyan, YANG Zhencai
268 Research Advances and Applications of Fluorescent Protein GAO Quanxin, WANG Jinbo, YIN Fei, MA Xiangming, SHI Zhaohong
275 Application of Whey Protein Concentrate in Piglet Production and Its Mechanisms ZHAN Liming, GUO Jiyu, WU De

POULTRY NUTRITION

- 281 Effects of Dietary Metabolizable Energy and Digestible Lysine Levels on Growth Performance and Serum Biochemical Parameters of Broilers at the Age of 21 to 42 Days YANG Guiqin, HAN Yujing, ZHANG Wenke, LIU Guohua, ZHENG Aijuan
289 Effects of Dietary Vitamin E Level on Growth Performance, Immune Function and Antioxidant Capacity of Yellow-Feathered Broilers Aged from 22 to 42 Days JIANG Shouqun, ZHOU Guilian, LIN Yingcai, CHEN Fang, HONG Ping, RUAN Dong
299 Calcium Requirement of Yellow-Feathered Broilers Aged from 43 to 63 Days HONG Ping, JIANG Shouqun, ZHOU Guilian, JIANG Zongyong, LIN Yingcai, ZHENG Chuntian, CHEN Fang
310 Effects of Dietary Calcium Level on Reproductive Performance and Tibia Quality of Yellow-Feathered Broiler Breeders Aged from 49 to 56 Weeks HONG Ping, ZHOU Guilian, JIANG Shouqun, RUAN Dong, CHEN Fang
319 Effects of Low-Protein Amino Acid-Supplemented Diets on Growth Performance, Serum Biochemical Indices and Fecal Nitrogen Content of *Beijing* Ducks LI Zhongrong, CHEN Wanru, YE Dingcheng, LIN Huang, LIU Jing

SUPPORTED FROM

(2013, in no particular order)

National Dairy Industry and Technology System

State Key Laboratory of Animal Nutrition

Shanghai Menon Animal Nutrition Technology Co., Ltd.

Sunhy Biology Co., Ltd. Wuhan Co., Ltd.

Huafen Feed Enzymes (Zhaoqing)

RUMINANT NUTRITION

- 326 Effects of Selenium and Vitamin E on Rumen Fermentation and Urinary Purine Derivative Contents in Simmental Steers
- 334 Effects of Heat Stress on Microbial Number in Rumen Fluid of Dairy Cows
- 344 Maternal Undernutrition during Late Pregnancy: Effects on Growth Development and Physiological and Biochemical Indexes in Blood of Mongolia Ovine Fetus

EXPERIMENTAL METHODS

- 350 Effects of Different Particle Size Feedstuffs on Fiber Material Content Measured by Filter Bag Technology
- 356 Simultaneous Determination of Several Water-Soluble Vitamins in Rumen Fluid by High Performance Liquid Chromatography

FEED SCIENCE AND TECHNOLOGY

- 364 Estimation for Metabolizability of Energy and Amino Acids of Wheat Distillers Dried Grains with Solubles in *Huainan* Spotted-Yellow Chicks
- 372 Effects of Diets Supplemented with Creatine Monohydrate on Creatine Uptake and Metabolism in Skeletal Muscle of Broilers
- 382 Effects of Combinations of Nisin, Potassium Sorbate and Tea Polyphenols on Storage Characteristics of Boil-in-Bag Liquid Feed
- 390 Effects of Daidzein on Performance, Blood Parameters and Economic Benefits in Laying Hens during the Late Laying Period

FEED RESOURCES DEVELOPMENT

- 397 Effects of Alfalfa Meal, Soybean Meal, Maize and Concentrate Mixture Replaced by Big Leaf Mulberry Meal on Rumen *in Vitro* Fermentation Characteristics
- 406 *Castanea mollissima* Blume Polyphenols: Extraction Technology Optimization and Its Antioxidant Activity

SHORT COMMUNICATIONS

- 415 Vitamin A Supplemental Level: Effects on Growth Performance and Antioxidant Parameters of Yellow-Feathered Broilers Aged from 43 to 63 Days
- 427 Effects of Nitrogen-Free Diet Method and Fasting Method on Endogenous Amino Acid Losses of *Yangzhou* Geese
- 433 Effects of Diets with Different Neutral Detergent Fiber Levels on Growth Performance and Nutrient Apparent Digestibility of Meat Sheep
- 441 Expression Patterns Analysis of Calcium Ion Trans-Membranous Absorption Related Genes in Gastrointestinal Tract of *Kunming* Mice

ZHANG Shuanlin, YUAN Xia, XU Yaguang, CHENG Jianguo, WU Jinxiao, NIE Yumei, HUANG Yingxiang, YANG Zhiling
DU Ruiping, WEN Yali, YAO Yanchu, JIANG Shan, GAO Min
ZHANG Chongzhi, LIU Yingchun, GAO Feng, CAO Ping, HOU Xianzhi, LI Shidong

TIAN Yujia, CAO Zhijun, LI Shengli, SHI Haitao, YANG Meng, XU Xiaofeng
ZHAO Yunjun, MENG Qingxiang

XIA Lunzhi, WU Dong, QIAN Kun, ZHOU Fen, WANG Li

XIA Weiguang, ZUO Jianjun, FENG Dingyuan
HE Yuyong, MA Peng, WANG Renhua, LIU Xiaolan, LU Wei
GU Huan, SHI Shourong, TONG Haibing, ZOU Jianmin, WANG Zhiyue

MA Meirong, LIU Jianxin, YANG Fang

SHI Enhui, GUO Kaijun, LI Hong, GU Mingcan, LU Lin, JIA Changxi

HONG Ping, JIANG Zongyong, JIANG Shouqun, ZHOU Guilian, ZHENG Chuntian, LIN Yingcai
JIANG Yinping, WANG Zhiyue, ZHOU Chunjiang, YANG Haiming
ZHANG Litao, LI Yanling, WANG Jinwen, CUI Xukui, MENG Xianfeng, TU Yan, DIAO Qiyu
YANG Yi, XIN Hailiang, XIA Xianlin, WU Wenxuan, LI Shengli