



中文核心期刊
中国科技核心期刊
中国科学引文数据库(CSCD)来源期刊
RCCSE中国核心学术期刊(A)
中国农林核心期刊

ISSN 2095-1191
CODEN NNXAAB

南方农业学报

Nanfang Nongye Xuebao

第53卷 第4期 2022年4月

Journal of Southern Agriculture

Vol.53 No.4 Apr. 2022

4

2022



广西壮族自治区农业科学院 主办
Sponsored by Guangxi Academy of Agricultural Sciences

科学出版社 出版
Published by Science Press

南方农业学报

Nanfang Nongye Xuebao

第53卷 第4期 2022年4月

目次

专题:猪业科学

- 891 基于CRISPR/Cas9技术构建*STING*基因敲除猪肺泡巨噬细胞系及其对I型干扰素转录的影响
..... 黄秋艳,杨焯城,张昆丽,孟繁明,李剑豪,朱向星,王塑天,唐冬生
- 899 高低肌肉脂肪猪背最长肌关键基因表达差异分析
..... 谭 娅,李 亮,雷宇航,黄志洋,赵春萍,张 静,张正群,齐 婧,朱 砾,史开志
- 908 陆川猪和杜长大猪*Nrf2*基因克隆及其在背最长肌中的表达分析
..... 涂羽昂,蔡沛燃,余嘉懿,罗云彦,蒋钦杨,黄艳娜
- 918 杜撒 δ ×大长撒 η F₁代*ARHGEF37*基因多态性及其对生长性状的影响
..... 朱怡轩,闵鹏聪,陈 强,王孝义,鲁绍雄,严达伟,李明丽
- 926 藏猪和杜藏猪生长、肉质性状及脂肪沉积相关基因的表达差异分析
..... 杨焯城,黄秋艳,辛海云,李宝红,杜宗亮,孟繁明,朱向星,李剑豪,王塑天,唐冬生
- 935 猪*FABP1*和*FABP2*基因的分子特征及组织表达分析
..... 熊 讯,李 永,阮 涌,陈 晨,宋林锦,石鹏飞,孙金魁,许厚强
- 946 不同环境胁迫因子对猪源耐药大肠杆菌生长的影响
..... 廖书丹,谭艾娟,孙海峰,向 润,杨 剑,张元鑫,宋旭琴,吕世明
- 958 不同穿膜肽载体转染对猪精子受精能力的影响
..... 陈集成,黄秀芸,郑自华,韦英明,杨素芳
- 969 F₃代香苏杂交猪*DKK1*基因多态性与生长性状的关联性
..... 许家利,许厚强,阮 涌,赵佳福,倪萌萌,孙金魁,石鹏飞
- 977 陆川猪*CSRP3*基因克隆及其组织表达差异分析
..... 陈 云,潘鹏丞,陈 钊,姜长津,关志惠,陈宝剑,梁 晶,谢炳坤,覃兆鲜
- 985 杜长大商品猪肌肉脂肪含量的全基因组关联分析
..... 高广雄,李 斌,高 宁,田宏山,朱 琳,郭春秀,赵云翔
- 991 我国猪业标准化体系现状解析及其对策建议
..... 周 全,伍曼婷,张雅惠,巫婷婷,陈亚静,赵小丽,赵书红,刘望宏

作物遗传育种·种质资源·分子生物学

- 1000 蒜芥茄*SsWRKY1*基因克隆及黄萎病病原菌胁迫下表达分析
..... 尹梦莹,蔚亚楠,杜光辉,桂 敏,黎志彬,鲍 锐,龚亚菊,吴丽艳
- 1011 油棕*SAUR*基因家族的全基因组鉴定及生物信息学分析
..... 周丽霞,杨蒙迪,曹红星,杨耀东
- 1021 江西省芝麻地方种质表型性状遗传多样分析
..... 王邳琪,孙 建,周红英,颜小文,梁俊超,赵云燕,饶月亮,危文亮,乐美旺
- 1030 无刺龙舌兰叶绿体基因组特征及密码子偏好性分析
..... 王 飞,辛雅莹,董章宏,赵文植,李卫英,马路遥,夏茂甜,辛培尧

植物保护·农业气象

- 1040 广西杉木炭疽病病原鉴定及生物学特性测定 廖旺姣, 邹东霞, 罗 辑, 吴耀军, 黄华艳
- 1049 湖北省葡萄主产区灰葡萄孢菌多样性分析
..... 王泽琼, 刘 勇, 王榕馨, 姜 婷, 龚林忠, 孙中海, 吕 亮
- 1057 多粘类芽胞杆菌分离鉴定及其对甘薯蔓割病的防治效果
..... 徐颖华, 柴沙沙, 李成阳, 张文英, 王 崇, 雷 剑, 靳晓杰, 宋 峥, 杨新笋, 王连军
- 1066 云南不同地理种群草地贪夜蛾肠道可培养细菌多样性分析
..... 李永萍, 杜广祖, 狄 藤, 孔德鸿, 杨 航, 杨进波, 易小光, 张庭发, 陈 斌
- 1078 捕食性天敌叉角厉蝽生长发育、繁殖及各虫态形态特征观察
..... 张 曼, 高 平, 赵 航, 周辰彦, 梁 晨, 汤永玉, 邢孔政, 吴国星, 高 熹

园艺·园林·林业

- 1088 不同采收期及贮藏方式对杂柑爱媛28果实品质的影响
..... 杨 蕾, 洪 林, 杨海健, 王 武, 汪 卉
- 1102 光质在血橙果皮花色苷合成中的调控作用
..... 杨海健, 周心智, 王 武, 杨 蕾, 洪 林, 彭芳芳, 张云贵
- 1112 盐胁迫对砂糖橘幼树生长、生物量积累及光合生理的影响
..... 郭雁君, 吉前华, 杜鹏飞, 尚荷斌, 钟雅玲
- 1121 近自然管理方式对橡胶林根际土壤真菌群落结构和多样性的影响
..... 李明美, 全 飞, 孙树晴, 兰国玉, 杨 川, 吴志祥
- 1131 贵州绿茶滋味分属性二次多项回归模型构建
..... 冉乾松, 刘忠英, 尹 杰, 李 琴, 戴宇樵, 杨 婷, 刘建军, 张 拓, 方仕茂, 潘 科
- 1143 卵孢长根菇不同生长期覆土层微生物群落结构多样性分析
..... 詹颖馨, 方 亮, 付圣麟, 苏广林, 陈 晗, 刘 斌
- 1152 中华蜜蜂授粉对猕猴桃产量和品质的影响
..... 赵 恬, 张锦华, 袁 扬, 王胤晨, 韦小平, 张定红, 高娅妮, 罗文菊, 陈 燕
- 1161 贮藏条件对菘蓝种子萌发和幼苗生理特性的影响
..... 王宏霞, 蔡子平, 王国祥, 张立军, 武伟国
- 1170 厌氧时间对桑叶茶 γ -氨基丁酸等主要成分及其感官品质的影响
..... 石 杨, 李美凤, 王家伦, 张金玉, 陈 猛, 冉乾松, 刘建军

农业信息技术·农业经济

- 1177 劳动力老龄化对农户生产技术效率的影响——基于1430个农户水稻生产数据分析
..... 邹永霖, 姚长林, 杜兴洋
- 1186 越南玉米产业发展及市场供需现状分析
..... 吕荣华, 邹成林, 唐茂艳, 陈 雷, 刘淑仪, 张晓丽, 曾 媛, Tran Van Quang, 吕佳茗

Journal of Southern Agriculture

Vol.53 No.4, 2022

Contents

Special Subject: Swine Industry Science

- 891 ***STING* gene knockout pig alveolar macrophage cell model constructed by CRISPR/Cas9 technology and its effect on type I interferon transcription** HUANG Qiu-yan, YANG Ye-cheng, ZHANG Kun-li, MENG Fan-ming, LI Jian-hao, ZHU Xiang-xing, WANG Su-tian, TANG Dong-sheng
- 899 **Expression difference analysis of hub genes between high and low intramuscular fat content in longissimus dorsi of pigs** TAN Ya, LI Liang, LEI Yu-hang, HUANG Zhi-yang, ZHAO Chun-ping, ZHANG Jing, ZHANG Zheng-qun, QI Jing, ZHU Li, SHI Kai-zhi
- 908 **Cloning and expression analysis of *Nrf2* gene in longissimus dorsi of Luchuan pig and Duroc×Landrace×Yorkshire pig** TU Yu-ang, CAI Pei-ran, YU Jia-yi, LUO Yun-yan, JIANG Qin-yang, HUANG Yan-na
- 918 **Polymorphism of *ARHGEF37* gene and its effect on growth traits in F₁ generation pigs of (Duroc×Saba)♂×[Yorkshire×(Landrace×Saba)]♀** ZHU Yi-xuan, MIN Peng-cong, CHEN Qiang, WANG Xiao-yi, LU Shao-xiong, YAN Da-wei, LI Ming-li
- 926 **Analysis of differences in growth, meat quality traits and expression of genes related to fat deposition between Tibetan and Duzang pigs** YANG Ye-cheng, HUANG Qiu-yan, XIN Hai-yun, LI Bao-hong, DU Zong-liang, MENG Fan-ming, ZHU Xiang-xing, LI Jian-hao, WANG Su-tian, TANG Dong-sheng
- 935 **Molecular characteristics and tissue expression analysis of *FABP1* and *FABP2* genes in pig** XIONG Xun, LI Yong, RUAN Yong, CHEN Chen, SONG Lin-jin, SHI Peng-fei, SUN Jin-kui, XU Hou-qiang
- 946 **Effects of different environmental stress factors on the growth of pig-origin drug-resistant *Escherichia coli*** LIAO Shu-dan, TAN Ai-juan, SUN Hai-feng, XIANG Run, YANG Jian, ZHANG Yuan-xin, SONG Xu-qin, LYU Shi-ming
- 958 **Effects of different transmembrane peptide carriers on pig sperm insemination ability** CHEN Ji-cheng, HUANG Xiu-yun, ZHENG Zi-hua, WEI Ying-ming, YANG Su-fang
- 969 **Correlation analysis of *DKK1* gene polymorphism and growth traits of F₃ generation Xiangsu hybrid pigs** XU Jia-li, XU Hou-qiang, RUAN Yong, ZHAO Jia-fu, NI Meng-meng, SUN Jin-kui, SHI Peng-fei
- 977 **Cloning and differential expression analysis of *CSRP3* gene in Luchuan pig** CHEN Yun, PAN Peng-cheng, CHEN Zhao, JIANG Chang-jin, GUAN Zhi-hui, CHEN Bao-jian, LIANG Jing, XIE Bing-kun, QIN Zhao-xian
- 985 **Genome-wide association study of intramuscular fat content in a Duroc-Landrace-Yorkshire pig population** GAO Guang-xiong, LI Bin, GAO Ning, TIAN Hong-shan, ZHU Lin, GUO Chun-xiu, ZHAO Yun-xiang
- 991 **Current situation analysis of pig industry standardization system in China and suggestions on countermeasures** ZHOU Quan, WU Man-ting, ZHANG Ya-hui, WU Ting-ting, Chen Ya-jing, ZHAO Xiao-li, ZHAO Shu-hong, LIU Wang-hong

Crop Genetics & Breeding · Germplasm Resources · Biotechnology

- 1000 **Cloning and expression analysis of *SsWRKY1* gene in *Solanum sisymbriifolium* under stress of verticillium wilt disease** YIN Meng-ying, YU Ya-nan, DU Guang-hui, GUI Min, LI Zhi-bin, BAO Rui, GONG Ya-ju, WU Li-yan
- 1011 **Genome-wide identification and bioinformatics analysis of the oil palm *SAUR* gene family** ZHOU Li-xia, YANG Meng-di, CAO Hong-xing, YANG Yao-dong
- 1021 **Genetic diversity analysis of phenotypic traits of sesame local germplasm in Jiangxi Province** WANG Zhi-qi, SUN Jian, ZHOU Hong-ying, YAN Xiao-wen, LIANG Jun-chao, ZHAO Yun-yan, RAO Yue-liang, WEI Wen-liang, LE Mei-wang

- 1030 Chloroplast genome characteristics and codon preference analysis of *Yucca treculeana*
..... WANG Fei, XIN Ya-xuan, DONG Zhang-hong, ZHAO Wen-zhi, LI Wei-ying, MA Lu-yao, XIA Mao-tian, XIN Pei-yao

Plant Protection · Agrometeorology

- 1040 Identification and biological characteristics of the pathogens of Chinese fir anthracnose in Guangxi
..... LIAO Wang-jiao, ZOU Dong-xia, LUO Ji, WU Yao-jun, HUANG Hua-yan
- 1049 Diversity of *Botrytis cinerea* in major grape production regions of Hubei Province
..... WANG Ze-qiong, LIU Yong, WANG Rong-xin, JIANG Ting, GONG Lin-zhong, SUN Zhong-hai, LYU Liang
- 1057 Isolation and identification of *Paenibacillus polymyxa* strain and its control effect on *Fusarium bulbigenum* of sweet potato
..... XU Ying-hua, CHAI Sha-sha, LI Cheng-yang, ZHANG Wen-ying, WANG Chong,
LEI Jian, JIN Xiao-jie, SONG Zheng, YANG Xin-sun, WANG Lian-jun
- 1066 Diversity analysis of cultivable intestinal bacteria in different geographic populations of *Spodoptera frugiperda* (J. E. Smith)
..... LI Yong-ping, DU Guang-zu, DI Teng, KONG De-hong, YANG Hang,
YANG Jin-bo, YI Xiao-guang, ZHANG Ting-fa, CHEN Bin
- 1078 Development, fecundity and morphological characteristics of the predatory *Eocanthecona furcellata* (Wolff)
..... ZHANG Man, GAO Ping, ZHAO Hang, ZHOU Chen-yan, LIANG Chen,
TANG Yong-yu, XING Kong-zheng, WU Guo-xing, GAO Xi

Horticulture · Landscape Architecture · Forestry

- 1088 Effects of different harvesting period and storage methods on Aiyuan 28 citrus fruit quality
..... YANG Lei, HONG Lin, YANG Hai-jian, WANG Wu, WANG Hui
- 1102 Regulatory function of light quality on anthocyanin synthesis in blood orange peel
..... YANG Hai-jian, ZHOU Xin-zhi, WANG Wu, YANG Lei, HONG Lin, PENG Fang-fang, ZHANG Yun-gui
- 1112 Effects of salt stress on plant growth, biomass accumulation and photosynthetic physiology of Shatangju saplings
..... GUO Yan-jun, JI Qian-hua, DU Peng-fei, SHANG He-bin, ZHONG Ya-ling
- 1121 Effects of close-to-natural management on the community structure and diversity of fungi in the rhizosphere soil of rubber plantation
..... LI Ming-mei, QUAN Fei, SUN Shu-qing, LAN Guo-yu, YANG Chuan, WU Zhi-xiang
- 1131 Construction of quadratic multinomial regression model for Guizhou green tea taste attributes
..... RAN Qian-song, LIU Zhong-ying, YIN Jie, LI Qin, DAI Yu-qiao, YANG Ting,
LIU Jian-jun, ZHANG Tuo, FANG Shi-mao, PAN Ke
- 1143 Diversity analysis of microbial community structure in casing soil in different growth stages of *Hymenopellis raphanipes*
..... ZHAN Ying-xin, FANG Liang, FU Sheng-lin, SU Guang-lin, CHEN Han, LIU Bin
- 1152 Effects of *Apis cerana cerana* pollination on the yield and quality of kiwifruit
..... ZHAO Tian, ZHANG Jin-hua, YUAN Yang, WANG Yin-chen, WEI Xiao-ping,
ZHANG Ding-hong, GAO Ya-ni, LUO Wen-ju, CHEN Yan
- 1161 Effects of storage conditions on seed germination and seedling physiological characteristics of *Isatis indigotica* Fort.
..... WANG Hong-xia, CAI Zi-ping, WANG Guo-xiang, ZHANG Li-jun, WU Wei-guo
- 1170 Effects of anaerobic time on main mulberry leaf tea components such as γ -aminobutyric acid and sensory quality
..... SHI Yang, LI Mei-feng, WANG Jia-lun, ZHANG Jin-yu, CHEN Meng, RAN Qian-song, LIU Jian-jun

Agricultural Information Technology · Agriculture Economics

- 1177 The impact of aging of the workforce on farmers' production technical efficiency: A study based on rice production data from 1430 farmers
..... ZOU Yong-lin, YAO Chang-lin, DU Xing-yang
- 1186 Analysis of the development of Vietnam's maize industry and the current situation of market supply and demand
..... LYU Rong-hua, ZOU Cheng-lin, TANG Mao-yan, CHEN Lei, LIU Shu-yi,
ZHANG Xiao-li, ZENG Yuan, Tran Van Quang, LYU Jia-ming