



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)  
中国农业核心期刊

ISSN 2095-1191  
CODEN NNXAAB

# 南方农业学报

Nanfang Nongye Xuebao

第51卷 第8期 2020年8月

Journal of Southern Agriculture

Vol.51 No.8 Aug. 2020

8

2020

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51卷 第8期 2020年8月

## 目次

### 优秀青年学者论坛

- 1785 基于转录组测序的木薯性别决定相关基因挖掘  
..... 韦丽君,俞奔驰,宋恩亮,郑 华,卢赛清,付海天
- 1797 藤茶高通量转录组分析及黄酮类化合物合成相关基因挖掘  
..... 许 明,杨志坚,黄学敏,郑金贵

### 专题:鸡

- 1806 鸡*BRD2*基因及其剪接体的克隆测序与亚细胞定位分析  
..... 周 磊,袁 超,韩一帆,高洪波,王燕碧,赵采芹,唐 宏,段志强
- 1816 产蛋鸡传染性支气管炎病毒的分离鉴定及其遗传变异和血清型分析  
..... 赵长润,张 文,董志华,陈基明,范文胜,唐 宁,韦天超,磨美兰,韦 平
- 1823 不同羽色鸡种*ASIP*基因SNP位点筛选及其生物信息学分析  
..... 简华锋,祖盘玉,李洪林,牟腾慧,龙广丽,饶永超,林家栋,李 辉,张福平
- 1832 肉鸡*CMTR2*基因分子特征及其表达谱分析 ..... 李修岭,徐香慧,邢晋祎
- 1840 贵州地方白羽鸡种*MSTN*基因SNP位点快速筛查及其蛋白功能预测  
..... 龙广丽,牟腾慧,刘 洋,饶永超,杨德凤,谭光辉,林家栋,傅筑荫,张福平
- 1849 FoxO3转录因子在鸡卵巢组织中的表达鉴定  
..... 洪永兴,彭腊如,黄振文,徐天鹏,濮黎萍,虞霖田,谢 龙,廖玉英,陆阳清
- 1857 鸡*BRD2*亚细胞定位及其组织表达特性分析  
..... 韩一帆,周 磊,袁 超,高洪波,王燕碧,赵采芹,唐 宏,段志强
- 1864 育成期高能饮食对蛋鸡肝脏转录组的影响  
..... 王星果,曲 亮,窦套存,郭 军,胡玉萍,马 猛,李永峰,王克华
- 1872 *OCX-32*基因内含子变异对长顺绿壳蛋鸡蛋壳品质的影响  
..... 吴 磊,谭光辉,李杰章,覃媛钰,张依裕,田 琴
- 1880 品种、冷冻速率和白藜芦醇对鸡精液冷冻保存效果的影响  
..... 喻宗岗,蒋 隽,朱立军,姚亚铃,蒲学慧,燕海峰

### 作物遗传育种·种质资源·分子生物学

- 1888 木薯*SCARECROW-LIKE(SCL)*基因克隆、生物信息学及非生物胁迫下表达分析  
..... 樊铸礪,罗兴录,单忠英,黄堂伟,程隆祥,吴美艳
- 1896 薏苡总苞性状的遗传分析 ..... 李祥栋,潘 虹,陆秀娟,魏心元,石 明,陆 平
- 1904 大豆脱落酸受体基因家族鉴定、系统发育进化及表达模式分析  
..... 张兆涵,张天旭,王万鹏,解莉楠

## 生理生化·土壤肥料·农业生态环境

- 1917 有机氮替代部分无机氮下减氮对宝岛蕉苗期生长及肥料氮素去向的影响  
..... 王雯清,黄丽娜,程世敏,赵增贤,魏守兴
- 1925 不同氮浓度对薏苡幼苗生长和光合特性的影响  
..... 王红娟,於春,路献勇,江本利,胡积送,余黎明,朱加保,闫晓明
- 1932 枯草杆菌发酵对何首乌抗氧化成分及肝癌细胞抗增殖作用的影响  
..... 范琼,赵敏,金明坤,韩丙军
- 1939 铁、锰对广西宿根甘蔗幼苗黄化的影响 ..... 龙光霞
- 1946 不同遮阴处理对土坛树幼苗生长的影响 ..... 杨浩,苏春桃,丘建煌,高秀梅,韩维栋
- 1953 喷施叶面镁肥对设施甜椒干物质累积、养分利用和产量的影响  
..... 孟祥明,黄晓曼,李健,侯炜,焦加斌,谢榕榕,许炜东,郑朝元
- 1960 20份小白菜品种引种试验农艺性状的多样性分析 ..... 赵孟良,韩睿,王紫莹,任延靖

## 植物保护·农业气象

- 1970 番茄黄化曲叶病毒侵染危害海南番茄及其分子特征  
..... 汤亚飞,周洋,张丽,李正刚,余小漫,于琳,蓝国兵,邓铭光,何自福
- 1977 大豆不同生育期叶际光合细菌群落结构特征  
..... 孔小婷,苏品,程菊娥,杜晓华,罗路云,陈丽洁,翟忠英,张德咏,刘勇
- 1985 不同种植年限和生育期三七上桃蚜体内蛋白含量及主要酶活性研究  
..... 张帅,罗文才,符成悦,陈斌,张立敏
- 1992 叉角厉蝽成虫对粘虫幼虫的捕食功能反应  
..... 廖贤斌,高平,赵航,谢永辉,陈雅琼,王志江,陈斌,吴国星,高熹
- 1998 气象因子与烤烟美拉德反应产物的相关分析  
..... 王林,曹明峰,邓勇,祝利,徐宸,景延秋,周红审,刘文龙,宁尚辉,张学伟

## 加工·贮藏·农业工程

- 2005 不同储藏温度下鲮鱼组胺含量与其品质变化的关系  
..... 孙项丽,王联珠,郭莹莹,江艳华,王婧媛,尹大芳
- 2013 不同月龄安格斯母牛屠宰性能、肉品质及卵巢发育比较  
..... 孙麇,蔡文杰,何芳,浣成,李昊帮,罗阳,樊志坚,张佰忠,易康乐
- 2020 雪胆多糖提取工艺优化及其抗氧化活性分析  
..... 邱磊,张蓉,赵艳,段柯兆,杨生超,张广辉
- 2028 固相微萃取—气相色谱—质谱联用分析桂鸡蕉1号果肉挥发性物质  
..... 韦莉萍,李朝生,周维,覃柳燕,田丹丹,黄曲燕,韦绍龙,李佳林,黄素梅,韦弟

## 农业信息技术·农业经济

- 2037 经济政策不确定性对我国大豆产业链价格波动的影响 ..... 刘望,于尊,崔宁波
- 2044 我国粮食安全脆弱性时空变化分析 ..... 夏汉军,李聪媛,赵迪

本期执行编辑:兰宗宝

期刊基本参数:CN 45-1381/S\*1940\*m\*A4\*266\*zh\*P\* ¥ 45.00\*1000\*33\*2020-08

万方数据

# Journal of Southern Agriculture

Vol.51 No.8, 2020

## Contents

### Outstanding Young Scholars Forum

- 1785 Gene mining for sex determination in cassava (*Manihot esculenta Crantz*) based on transcriptome sequencing ..... WEI Li-jun, YU Ben-chi, SONG En-liang, ZHENG Hua, LU Sai-qing, FU Hai-tian
- 1797 Transcriptome analysis of *Ampelopsis grossedentata* (Hand. Mazz.) W. T. Wang and mining of putative genes involved in flavonoid biosynthesis ..... XU Ming, YANG Zhi-jian, HUANG Xue-min, ZHENG Jin-gui

### Special Subject: *Gallus domesticus*

- 1806 Cloning, sequence analysis and subcellular localization of chicken *BRD2* gene and its splices ..... ZHOU Lei, YUAN Chao, HAN Yi-fan, GAO Hong-bo, WANG Yan-bi, ZHAO Cai-qin, TANG Hong, DUAN Zhi-qiang
- 1816 Isolation and identification of an infectious bronchitis virus from laying hens and analysis of its genetic variability and serotype ..... ZHAO Chang-run, ZHANG Wen, DONG Zhi-hua, CHEN Ji-ming, FAN Wen-sheng, TANG Ning, WEI Tian-chao, MO Mei-lan, WEI Ping
- 1823 Screening of SNP locus and its bioinformatics analysis of *ASIP* gene in different chicken breeds with various feather colors ..... JIAN Hua-feng, ZU Pan-yu, LI Hong-lin, MOU Teng-hui, LONG Guang-li, RAO Yong-chao, LIN Jia-dong, LI Hui, ZHANG Fu-ping
- 1832 Molecular characterization and expression pattern of *CMTR2* gene in broiler ..... LI Xiu-ling, XU Xiang-hui, XING Jin-yi
- 1840 Rapid screening and protein function prediction of *MSTN* gene SNP sites in Guizhou local chicken breeds ..... LONG Guang-li, MOU Teng-hui, LIU Yang, RAO Yong-chao, YANG De-feng, TAN Guang-hui, LIN Jia-dong, FU Zhu-yin, ZHANG Fu-ping
- 1849 Identification of expression of FoxO3 transcription factor in chicken ovaries ..... HONG Yong-xing, PENG La-ru, HUANG Zhen-wen, XU Tian-peng, PU Li-ping, YU Lin-tian, XIE Long, LIAO Yu-ying, LU Yang-qing
- 1857 Subcellular localization of chicken bromodomain-containing protein 2 (*BRD2*) and its expression characteristics ..... HAN Yi-fan, ZHOU Lei, YUAN Chao, GAO Hong-bo, WANG Yan-bi, ZHAO Cai-qin, TANG Hong, DUAN Zhi-qiang
- 1864 Effects of high energy diet on liver transcriptome of laying hens during growing period ..... WANG Xing-guo, QU Liang, DOU Tao-cun, GUO Jun, HU Yu-ping, MA Meng, LI Yong-feng, WANG Ke-hua
- 1872 Effects of *OCX-32* gene intron variation on eggshell quality of Changshun green-eggshell laying hens ..... WU Lei, TAN Guang-hui, LI Jie-zhang, QIN Yuan-yu, ZHANG Yi-yu, TIAN Qin
- 1880 Effects of breeding line, freezing rate and resveratrol on chicken semen cryopreservation ..... YU Zong-gang, JIANG Juan, ZHU Li-jun, YAO Ya-ling, PU Xue-hui, YAN Hai-feng

### Crop Genetics & Breeding · Germplasm Resources · Biotechnology

- 1888 Cloning, bioinformatics analysis and expression under abiotic stress of *SCARECROW-LIKE* (*SCL*) gene in cassava ..... FAN Zhu-peng, LUO Xing-lu, SHAN Zhong-ying, HUANG Tang-wei, CHENG Long-xiang, WU Mei-yan
- 1896 Inheritance of involucre traits in *Coix lacryma-jobi* L. .... LI Xiang-dong, PAN Hong, LU Xiu-juan, WEI Xin-yuan, SHI Ming, LU Ping
- 1904 Identification, phylogenetic evolution and expression analysis of abscisic acid receptors gene family in *Glycine max* L. Merr ..... ZHANG Zhao-han, ZHANG Tian-xu, WANG Wan-peng, XIE Li-nan

## Physiology & Biochemistry · Soil & Fertilizer · Agroecology Environmet

- 1917 Effects of organic nitrogen replacing part of inorganic nitrogen and reducing nitrogen application on the growth and nitrogen fate of *Musaacuminata* L. AAA Cavendish. cv. Formosana at seedling stage  
..... WANG Wen-qing, HUANG Li-na, CHENG Shi-min, ZHAO Zeng-xian, WEI Shou-xing
- 1925 Effects of different nitrogen concentrations on seedling growth and photosynthetic characteristics of coix  
..... WANG Hong-juan, YU Chun, LU Xian-yong, JIANG Ben-li, HU Ji-song, YU Li-ming, ZHU Jia-bao, YAN Xiao-ming
- 1932 Effects of *Polygonum multiflorum* Thunb fermented by *Bacillus subtilis* on main antioxidant ingredient contents and anti-proliferation effects on hepatoblastoma cells ..... FAN Qiong, ZHAO Min, KIM Myung-kon, HAN Bing-jun
- 1939 Effects of iron and manganese on ratoon sugarcane seedlings chlorosis in Guangxi ..... LONG Guang-xia
- 1946 Effects of different shading treatments on the growth of *Alangium salviifolium* (Linn.f.) Wanger. seedlings  
..... YANG Hao, SU Chun-tao, QIU Jian-huang, GAO Xiu-mei, HAN Wei-dong
- 1953 Effects of foliar magnesium application on dry matter accumulation, nutrient utilization and yield of facility sweet peppers ..... MENG Xiang-ming, HUANG Xiao-man, LI Jian, HOU Wei, JIAO Jia-bin, XIE Rong-rong, XU Wei-dong, ZHENG Chao-yuan
- 1960 Diversity of agronomic characters of 20 pakchoi varieties in introduction experiment  
..... ZHAO Meng-liang, HAN Rui, WANG Zi-ying, REN Yan-jing

## Plant Protection · Agrometeorology

- 1970 *Tomato yellow leaf curl virus* infecting tomato in Hainan and its molecular characteristics  
..... TANG Ya-fei, ZHOU Yang, ZHANG Li, LI Zheng-gang, SHE Xiao-man, YU Lin, LAN Guo-bing, DENG Ming-guang, HE Zi-fu
- 1977 Community structure characteristics of soybean phyllosphere photosynthetic bacteria in different growth stages  
..... KONG Xiao-ting, SU Pin, CHENG Ju-e, DU Xiao-hua, LUO Lu-yun, CHEN Li-jie, ZHAI Zhong-ying, ZHANG De-yong, LIU Yong
- 1985 Protein content and the activities of main enzymes in *Myzus persicae* (Sulzer) feeding on *Panax notoginseng* at growth period at different planting periods ..... ZHANG Shuai, LUO Wen-cai, FU Cheng-yue, CHEN Bin, ZHANG Li-min
- 1992 Predatory function response of adult of *Eocanthecona furcellata* (Wolff) to the larvae of *Mythimna seperata* (Walker)  
..... LIAO Xian-bin, GAO Ping, ZHAO Hang, XIE Yong-hui, CHEN Ya-qiong, WANG Zhi-jiang, CHEN Bin, WU Guo-xing, GAO Xi
- 1998 Correlation analysis between meteorological factors and Maillard reaction products of flue-cured tobacco  
..... WANG Lin, CAO Ming-feng, DENG Yong, ZHU Li, XU Chen, JING Yan-qiu, ZHOU Hong-shen, LIU Wen-long, NING Shang-hui, ZHANG Xue-wei

## Processing · Storage · Agricultural Engineering

- 2005 Histamine content and quality of mackerel under different storage temperatures  
..... SUN Xiang-li, WANG Lian-zhu, GUO Ying-ying, JIANG Yan-hua, WANG Jing-yuan, YIN Da-fang
- 2013 Comparison on slaughter performance, meat quality and ovary development of Angus cows of different months of age  
..... SUN Ao, CAI Wen-jie, HE Fang, HUAN Cheng, LI Hao-bang, LUO Yang, FAN Zhi-jian, ZHANG Bai-zhong, YI Kang-le
- 2020 Optimization of extraction process of polysaccharides from *Hemsleya chinensis* and its antioxidant activity  
..... QIU Lei, ZHANG Rong, ZHAO Yan, DUAN Ke-zhao, YANG Sheng-chao, ZHANG Guang-hui
- 2028 Analysis of volatile compounds in flesh of *Musa* spp. cv. Guijijiao 1 by solid phase microextraction and gas chromatography-mass spectrometry ..... WEI Li-ping, LI Chao-sheng, ZHOU Wei, QIN Liu-yan, TIAN Dan-dan, HUANG Qu-yan, WEI Shao-long, LI Jia-lin, HUANG Su-mei, WEI Di

## Agricultural Information Technology · Agriculture Economics

- 2037 The influence of economic policy uncertainty on China's soybean industry chain futures price fluctuation  
..... LIU Wang, YU Zun, CUI Ning-bo
- 2044 Spatial and temporal changes of China's food security vulnerability ..... XIA Han-jun, LI Cong-yuan, ZHAO Di