



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50卷 第2期 2019年2月

Journal of Southern Agriculture

Vol.50 No.2 Feb. 2019

2
2019

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50卷 第2期 2019年2月

目 次

作物遗传育种·种质资源·分子生物学

- 215 槟榔 *AcAAP3* 基因 cDNA 克隆及其组织表达特性分析 李佳, 曹先梅, 谢赛, 刘立云
222 木薯 *AGPase* 基因家族的生物信息学及其表达分析 王明, 肖鑫辉, 应东山, 王琴飞, 李莉萍, 张如莲, 叶剑秋

- 230 外源生长激素对水稻 T-DNA 插入突变体褐飞虱抗性的影响及其农艺性状测定 舒宛, 王心怡, 李志华, 李洋, 何勇, 邱永福, 田志宏

- 237 广西大豆育种四十年进展与展望 汤复跃, 陈渊, 韦清源, 陈文杰, 郭小红, 梁江

生理生化·土壤肥料·农业生态环境

- 247 镍胁迫对水培桑苗生长的影响 曾燕蓉, 朱方容, 林强, 贾雪峰, 宋宪军, 朱光书, 崔秋英, 邱长玉, 唐燕梅

- 257 镍胁迫对10个桑树品种种子萌发的影响 陈露, 王晓红, 张芳, 邢丹, 张明生

- 264 去花对牛大力生物量和有效成分含量的影响 马帅鹏, 吴健雄, 林希昊

- 270 不同熟期玉米品种对桂西北春、秋季播期的响应 卢亚妮, 侯青光, 韦维, 韦林汕, 黄柄壬, 韦贵剑, 吴庆梅

- 278 植物花色苷的研究进展 单建伟, 刘晓津, 索海翠, 安康, 罗焕明, 王丽, 李小波

植物保护·农业气象

- 286 菜粉蝶 *HSP20* 基因的克隆及温度胁迫下表达分析 袁远, 张连根, 高熹, 吴国星, 张慧, 龙华, 朱家位

- 292 不同种植模式下甘蔗梢腐病和香蕉枯萎病病害调查及其病原真菌分离鉴定 龙盛风, 李文教, 韦绍龙, 林善海, 李毅杰, 梁强, 王泽平

- 299 思茅松林下三七上节肢动物群落组成结构及多样性分析 曹宁宁, 葛文超, 叶辰, 伍晨兴, 杜广祖, 陈国华, 朱书生, 陈斌

- 307 百合灰霉病病原菌鉴定及其部分生物学特性测定 杜艳丽, 曹兴, 王桂清, 赵培宝, 李海云, 荆晓东, 吴泽, 义鸣放, 张秀省

- 315 基于模糊隶属度的烟草还苗期气象风险评估方法 严志雁, 苏小波, 吴辉, 冯小虎, 丁建, 方浩

园艺·园林·林业

- 323 不同用量保水剂对沿海沙地麻竹生理特征的影响 荣俊冬, 凡莉莉, 陈礼光, 何天友, 林宇, 郑晶晶, 郑郁善

- 330 氮沉降背景下遮阴对虎耳草生长和光合作用的影响 王锐洁, 刘筱, 杨淑君, 姬拉拉, 严令斌, 关萍, 江学海, 喻理飞, 王健健

- 338 不同砧木对沃柑树体及果实品质的影响 刘要鑫, 陈东奎, 李果果, 仇惠君, 欧智涛, 陈香玲, 黄其椿, 赵洪涛

344 黑皮鸡枞液体菌种发酵罐培养条件的优化 徐 宁,冯立国,王春晖,邓召利,邹世成,陆 欢

350 多肉植物康平寿叶插繁殖技术的优化 韦明金,郭 松,李在留,李小妹,吴芳兰

加工·贮藏·质量安全

357 青胡桃总黄酮含量测定及抗氧化活性分析 赵国超,周 欣,李 容,龚小见

364 赣南早脐橙果实发育时期果皮挥发性成分分析

..... 周 娟,李丹阳,陈健美,赖春旺,赖恒鑫,温诗韵,钟八莲

372 鲍鱼内脏多糖分离纯化与抗氧化活性评价

..... 陈胜军,刘先进,杨贤庆,李来好,黄 卉,吴燕燕,胡 晓,李春生

378 乳链菌肽对采后荸荠腐烂病和贮藏品质的影响 谢冬娣,覃丽丹,宋慕波,谢玉花,卢 强,关献梅

畜牧·兽医·水产·蚕桑

385 香港牡蛎野生群体家系建立及耐高盐性筛选

..... 张兴志,官俊良,何革萍,韦嫔媛,张 立,罗 帮,彭金霞,李琼珍

391 家蚕眠期血淋巴酚氧化酶活性变化及其基因表达分析 杨伟克,刘增虎,钟 健,董占鹏

397 广西南部主要水系野生罗非鱼建群状况调查分析

..... 赵立朝,吴志强,张 曼,郑 雄,李德越,刘博文

405 RFRP-3对大鼠附睾生殖功能的影响 李 鸣,石博妹,张 鑫,李飞飞,李 珣

412 稀土尾矿库渗漏水污染对花背蟾蜍胚后发育的毒性作用

..... 黄 涛,求瑞娟,兰宗宝,任逸晨,杨 畅,钱永靖,王春丹,贺小英,司万童

418 水温和光照强度对乌原鲤耗氧率与临界窒息点的影响

..... 李育森,雷建军,韩耀全,施 军,吴伟军,王大鹏,何安尤

农业信息技术·农业经济

424 气候变化视角下我国粮食生产率增长及其影响因素分析 刘战伟

432 全程机械化背景下水稻生产环节劳动力与机械的替代弹性分析——基于江苏省水稻种植户调查数据

..... 张静宇,周 宏

Journal of Southern Agriculture

Vol.50 No.2, 2019

Contents

Crop genetics & breeding · germplasm resources · biotechnology

- 215 Cloning of *AcAAP3* cDNA of *Areca catechu* L. and its tissue expression characters LI Jia, CAO Xian-mei, XIE Sai, LIU Li-yun
222 Bioinformatics and expression of *AGPase* gene family in cassava WANG Ming, XIAO Xin-hui, YING Dong-shan, WANG Qin-fei, LI Li-ping, ZHANG Ru-lian, YE Jian-qiu
230 Effect of exogenous growth hormone treatment on brown planthopper resistance of rice T-DNA insertion mutant and its agronomic traits detection SHU Wan, WANG Xin-yi, LI Zhi-hua, LI Yang, HE Yong, QIU Yong-fu, TIAN Zhi-hong
237 Breeding of soybean during the past 40 years in Guangxi:A review TANG Fu-yue, CHEN Yuan, WEI Qing-yuan, CHEN Wen-jie, GUO Xiao-hong, LIANG Jiang

Physiology & biochemistry · soil & fertilizer · agroecology environment

- 247 Impacts of cadmium stress on growth of hydroponic mulberry seedlings ZENG Yan-rong, ZHU Fang-rong, LIN Qiang, JIA Xue-feng, SONG Xian-jun, ZHU Guang-shu, CUI Qiu-ying, QIU Chang-yu, TANG Yan-mei
257 Effects of cadmium stress on seed germination of ten mulberry varieties CHEN Lu, WANG Xiao-hong, ZHANG Fang, XING Dan, ZHANG Ming-sheng
264 Effects of defloration on biomass and contents of active components of *Millettia speciosa* Champ. MA Shuai-peng, WU Jian-xiong, LIN Xi-hao
270 Response of different maize varieties at maturity stage to sowing dates of spring and autumn in northwestern Guangxi LU Ya-ni, HOU Qing-guang, WEI Wei, WEI Lin-shan, HUANG Bin-ren, WEI Gui-jian, WU Qing-mei
278 Plant anthocyanins: A review SHAN Jian-wei, LIU Xiao-jin, SUO Hai-cui, AN Kang, LUO Huan-ming, WANG Li, LI Xiao-bo

Plant protection · agrometeorology

- 286 Cloning of *HSP20* gene from *Pieris rapae* and its expression under temperature stress YUAN Yuan, ZHANG Lian-gen, GAO Xi, WU Guo-xing, ZHANG Hui, LONG Hua, ZHU Jia-wei
292 Disease investigation and fungi isolation on sugarcane pokkah boeng and banana vascular wilt under different cropping systems LONG Sheng-feng, LI Wen-jiao, WEI Shao-long, LIN Shan-hai, LI Yi-jie, LIANG Qiang, WANG Ze-ping
299 Composition structure and diversity of arthropod communities on understory planted *Panax notoginseng* in *Pinus kesiya* var. *langbianensis* forest CAO Ning-ning, GE Wen-chao, YE Chen, WU Sheng-xing, DU Guang-zu, CHEN Guo-hua, ZHU Shu-sheng, CHEN Bin
307 Identification and partial biological characteristics of pathogen causing lily gray mold DU Yan-li, CAO Xing, WANG Gui-qing, ZHAO Pei-bao, LI Hai-yun, JING Xiao-dong, WU Ze, YI Ming-fang, ZHANG Xiu-sheng
315 Meteorological risk assessment method for tobacco in seedling stage based on fuzzy membership degree YAN Zhi-yan, SU Xiao-bo, WU Hui, FENG Xiao-hu, DING Jian, FANG Hao

Horticulture · landscape architecture · forestry

- 323 Effects of different dosages of super absorbent polymers (SAP) on physiological indexes of *Dendrocalamus latiflorus* in coastal sand RONG Jun-dong, FAN Li-li, CHEN Li-guang, HE Tian-you, LIN Yu, ZHENG Jing-jing, ZHENG Yu-shan

- 330 Effects of shading on growth and photosynthesis of *Saxifraga stolonifera* Curt. under nitrogen deposition WANG Rui-jie, LIU Xiao, YANG Shu-jun, JI La-la, YAN Ling-bin, GUAN Ping, JIANG Xue-hai, YU Li-fei, WANG Jian-jian
- 338 Effect of different rootstocks on Orah's tree body and fruit quality LIU Yao-xin, CHEN Dong-kui, LI Guo-guo, QIU Hui-jun, OU Zhi-tao, CHEN Xiang-ling, HUANG Qi-chun, ZHAO Hong-tao
- 344 Optimization of culture conditions of fermentation technology for *Oudemansiella raphanipes* liquid strain fermenter XU Ning, FENG Li-guo, WANG Chun-hui, DENG Zhao-li, ZOU Shi-cheng, LU Huan
- 350 Optimization in the propagation technique of succulent plant *Haworthia emelya* leaf cutting WEI Ming-jin, GUO Song, LI Zai-liu, LI Xiao-mei, WU Fang-lan
- Processing · storage · quality safety**
- 357 Determination of total flavonoids content and antioxidant activity of *Juglans regia* L. ZHAO Guo-chao, ZHOU Xin, LI Rong, GONG Xiao-jian
- 364 Volatile components in fruit development period of Gannanzao navel orange ZHOU Juan, LI Dan-yang, CHEN Jian-mei, LAI Chun-wang, LAI Heng-xin, WEN Shi-yun, ZHONG Ba-lian
- 372 Isolation and purification of visceral polysaccharides from abalone and its antioxidant activity CHEN Sheng-jun, LIU Xian-jin, YANG Xian-qing, LI Lai-hao, HUANG Hui, WU Yan-yan, HU Xiao, LI Chun-sheng
- 378 Effects of nisin on corm rot and storage quality of postharvest water chestnut (*Eiocharis tuberosa* Schult) XIE Dong-di, QIN Li-dan, SONG Mu-bo, XIE Yu-hua, LU Qiang, GUAN Xian-mei
- Animal science · veterinary science · aquaculture · sericulture**
- 385 Establishment of families and subsequent high salinity resistance testing for wild population of *Crassostrea hongkongensis* ZHANG Xing-zhi, GUAN Jun-liang, HE Ping-ping, WEI Pin-yuan, ZHANG Li, LUO Bang, PENG Jin-xia, LI Qiong-zhen
- 391 Variation of activity of phenoloxidase and its gene expression in hemolymph of *Bombyx mori* larvae during molting stage YANG Wei-ke, LIU Zeng-hu, ZHONG Jian, DONG Zhan-peng
- 397 Establishment of wild tilapia population community in main rivers of southern Guangxi ZHAO Li-chao, WU Zhi-qiang, ZHANG Man, ZHENG Xiong, LI De-yue, LIU Bo-wen
- 405 Effect of RFRP-3 on reproductive function of rat epididymis LI Ming, SHI Bo-me, ZHANG Xin, LI Fei-fei, LI Xun
- 412 The toxic effects of leakage water from rare earth tailings reservoir on the postembryonic development of *Strauchbufo raddei* HUANG Tao, QIU Rui-juan, LAN Zong-bao, REN Yi-chen, YANG Chang, QIAN Yong-jing, WANG Chun-dan, HE Xiao-ying, SI Wan-tong
- 418 Effect of temperature and light intensity on oxygen consumption rate and critical asphyxiation point of Chinese ink carp (*Procypris merus*) LI Yu-sen, LEI Jian-jun, HAN Yao-quan, SHI Jun, WU Wei-jun, WANG Da-peng, HE An-you
- Agricultural information technology · agriculture economics**
- 424 China's grain productivity growth and its influencing factors under the climate change perspective LIU Zhan-wei
- 432 Substitution elasticity of labor and machinery in the production of rice under the background of mechanization: Based on the survey data of rice farmers in Jiangsu Province ZHANG Jing-yu, ZHOU Hong