



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49卷 第11期 2018年11月

Journal of Southern Agriculture
Vol.49 No.11 Nov. 2018

11
2018



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49卷 第11期 2018年11月

目 次

作物遗传育种·种质资源·分子生物学

- 2117 橡胶树乳管细胞GPPS基因的克隆与表达分析
2129 金边也门铁花叶性状差异表达基因的cDNA-AFLP分析
2136 EGTA结合热处理对香蕉果实CBF冷应答途径相关基因表达的影响
2141 外源赤霉素对太子参块根中细胞分裂素含量及其代谢关键酶基因表达的影响
2148 基于SRAP和ISSR标记的薄荷种质资源遗传多样性及亲缘关系分析

邓小敏,于洁,陈莹,晁金泉,
张世鑫,田维敏
刘和平,何业华,林剑波,张俊丽
王海波,李璐,苏新国,张昭其

张晨,周涛,郑伟,李军,
肖承鸿,龚安慧,江维克
王少铭,侯颖辉,罗莉斯,冷家归,
李德文

生理生化·土壤肥料·农业生态环境

- 2155 不同价态铬离子对烟草幼苗抗氧化关键酶和根系活力的影响
2162 稻秆浸提液对小麦根尖和胚乳结构及幼苗生长的影响
2169 不同林分土壤中氨氧化微生物的群落结构和硝化潜势差异及其驱动因子
2177 2012—2016年四川省水稻区试中籼晚熟组参试组合分析
2186 不同种植密度和生育期对鲜食型甘薯皖薯5号产量及干物质积累的影响

赵明香,张琦,赵德国,向蓉蓉,
朱永立,保志娟
李波,杨阳,曹文韬,刘建,
余徐润,熊飞,魏亚凤
路璐,何燕

王佳婧,何芳,王勇,侯宪斌
夏家平,杜祥备,韩杨,刘小平

植物保护·农业气象

- 2193 小菜蛾性信息素结合蛋白与顺-9-十四碳烯酸酯作用的分子模拟
2198 云南甘蔗病毒性病害的分子鉴定

2204 辣椒田蜘蛛混合种群空间分布型分析
2210 不同修复剂对二氯喹啉酸致害烟株及其土壤微生物和酶活性的影响
2218 辣木瑙螟幼虫虫龄的判定

赵奇,邓培渊,李玉华,杨玉珍,
杨宗渠,雷志华
冯小艳,沈林波,赵婷婷,熊国如,
王俊刚,杨本鹏,王文治,冯翠莲,
张树珍
王小强,曹馨月,刘虹玲,伍兴隆,
蒲德强,李跃建,房超
周小会,舒然,黄化刚,代园凤,
杨森,龙友华,刘文涛,尹显慧
夏涛,李召波,吴国星,李凡,
李强,田洋,马春花,曾千春,
高熹

园艺·园林·林业

- 2224 菠萝果实发育过程中的内源激素变化及品质形成特点

林文秋,肖熙鸥,张红娜,刘胜辉,
孙伟生,李运合,吴青松

2230 低温胁迫对不同品系甘蓝幼叶AsA-GSH循环代谢的影响

山 溪,秦文斌,张振超,姚悦梅,

肖 燕,戴忠良

2236 露地菊脚芽农杆菌真空渗透转化技术体系的建立

王羽晗,李子豪,李世彪,陈驰航,

王瑜麟,吴雅妮,张 眇

2242 不同配方落叶剂对榕树冬季集中落叶的效应

郑殊红,袁 媛,谢 倩,叶清华,

刘向国,陈清西

2250 潮汐系统下不同盐度水体对红花玉蕊幼苗生理特性的影响

梁 芳,黄秋伟,檀小辉,龙凌云,

张 继,邓 旭

2256 树冠覆膜对沙糖橘留树过程中品质变化的影响

唐 艳,刘 萍,陈传武,牛 英,

邓崇岭,莫元妹,范七君

加工·贮藏·质量安全

2263 不同产地葡萄花青素提取物的HPLC特征图谱构建及其生物活性分析

谭 西,王馨悦,周 欣,陈华国

2273 袋装临沧铁壳麦种子活力及 α -淀粉酶、脂肪氧化酶活性与表达量分析

周国雁,隆文杰,陈 丹,武晓阳,
伍少云,蔡 青

2282 噻虫嗪在甘蔗和土壤中的残留行为及风险评估

邹志博,罗金辉,谢德芳

畜牧·兽医·水产·蚕桑

2292 奥尼罗非鱼GHR2基因序列及其表达特征分析

钟 欢,张孝瑾,肖 俊,唐瞻杨,

郭忠宝,罗永巨,周 毅

2298 宽体金线蛭基因组SSR序列特征分析及其分子标记开发

熊良伟,王帅兵,岳丽佳,王建国,

陶桂庆,徐 亮,王 权

2304 尼罗罗非鱼Lck多克隆抗体的制备及鉴定

张永德,林 勇,冯鹏霏,陈 忠,

2311 不同产犊季节对荷斯坦牛生长曲线拟合的影响

杜雪松,黄 娴,潘传燕,罗洪林

2320 军曹鱼仔鱼异速生长研究

王梦琦,唐 程,倪 炜,郭佳禾,

2327 柴桂感寒口服液急性毒性和长期毒性试验

张慧敏,李明勋,杨章平,毛永江

农业信息技术·农业经济

2335 我国对美出口罗非鱼产品环境效应评估

岳冬冬,李旭君,耿 瑞

2342 基于SAGA-SVR预测模型的水稻种子水分含量高光谱检测

芦 兵,孙 俊,杨 宁,武小红

Journal of Southern Agriculture

Vol.49 No.11, 2018

Contents

Crop genetics & breeding · germplasm resources · biotechnology

- 2117 Cloning and expression analysis of *GPPS* genes from the laticifer cells of *Hevea brasiliensis* DENG Xiao-min, YU Jie, CHEN Ying, CHAO Jin-quan, ZHANG Shi-xin, TIAN Wei-min
- 2129 cDNA-AFLP analysis on differentially expressed genes related to floral leaf characters of *Dracaena fragrans* cv. *lindenii* LIU He-ping, HE Ye-hua, LIN Jian-bo, ZHANG Jun-li
- 2136 Effects of EGTA combined with heat treatment on expression of CBF cold response pathway related genes in banana fruit WANG Hai-bo, LI Lu, SU Xin-guo, ZHANG Zhao-qi
- 2141 Effects of exogenous gibberellin on cytokinin content variation in *Pseudostellaria heterophylla* root and metabolism key enzyme gene expression ZHANG Chen, ZHOU Tao, ZHENG Wei, LI Jun, XIAO Cheng-hong, GONG An-hui, JIANG Wei-ke
- 2148 Genetic diversity and genetic relationship of *Mentha* L. germplasm resources based on SRAP and ISSR markers WANG Shao-ming, HOU Ying-hui, LUO Li-si, LENG Jia-gui, LI De-wen

Physiology & biochemistry · soil & fertilizer · agroecology environment

- 2155 Effects of chromium ions with different valences on antioxidant key enzymes and root activity of tobacco seedlings ZHAO Ming-xiang, ZHANG Qi, ZHAO De-guo, XIANG Rong-rong, ZHU Yong-li, BAO Zhi-juan
- 2162 Effects of rice straw extract on wheat root tip, endosperm structure and seedling growth LI Bo, YANG Yang, CAO Wen-tao, LIU Jian, YU Xu-run, XIONG Fei, WEI Ya-feng
- 2169 The difference of ammonia-oxidizing microorganism communities structure and nitrification potential in soils of different forest stands and their driving factors LU Lu, HE Yan
- 2177 Analysis on the regional trial data of late-maturing medium indica rice tested varieties in Sichuan Province from 2012 to 2016 WANG Jia-jing, HE Fang, WANG Yong, HOU Xian-bin
- 2186 Effects of different planting densities and growth stages on yield and dry matter accumulation of table sweet potato variety Wanshu No.5 XIA Jia-ping, DU Xiang-bei, HAN Yang, LIU Xiao-ping

Plant protection · agrometeorology

- 2193 Molecular simulation of interactions between sex pheromone binding proteins and cis-9-tetradecenoic acid ester in *Plutella xylostella* ZHAO Qi, DENG Pei-yuan, LI Yu-hua, YANG Yu-zhen, YANG Zong-qu, LEI Zhi-hua
- 2198 Molecular identification of virus diseases in sugarcane in Yunnan FENG Xiao-yan, SHEN Lin-bo, ZHAO Ting-ting, XIONG Guo-ru, WANG Jun-gang, YANG Ben-peng, WANG Wen-zhi, FENG Cui-lian, ZHANG Shu-zhen
- 2204 Spatial distribution of mixed spider populations in pepper fields WANG Xiao-qiang, CAO Xin-yue, LIU Hong-ling, WU Xin-long, PU De-qiang, LI Yue-jian, FANG Chao
- 2210 Effects of different remediate agents on tobacco plants caused phytotoxicity by quinclorac and its soil microorganisms and enzyme activities ZHOU Xiao-hui, SHU Ran, HUANG Hua-gang, DAI Yuan-feng, YANG Sen, LONG You-hua, LIU Wen-tao, YIN Xian-hui
- 2218 Determination of larval instars of *Noorda blitealis* Walker XIA Tao, LI Zhao-bo, WU Guo-xing, LI Fan, LI Qiang, TIAN Yang, MA Chun-hua, ZENG Qian-chun, GAO Xi

Horticulture · landscape architecture · forestry

- 2224 Changes of endogenous hormones and characters of fruit quality formation during growth of pineapple LIN Wen-qi, XIAO Xi-ou, ZHANG Hong-na, LIU Sheng-hui, SUN Wei-sheng, LI Yun-he, WU Qing-song

- 2230 Effects of low temperature stress on leaf AsA-GSH cycle metabolism in different varieties *Brassica oleracea* L.
- 2236 Establishment of vacuum infiltration and transformation technique of *Agrobacterium* in *Chrysanthemum morifolium* foot buds
- 2242 Effects of different defoliant formulations on concentrated deciduous leaves of *Ficus microcarpa* L. f. in winter
- 2250 Effects of different water salinities on physiological characteristics of *Barringtonia acutangula* seedlings under tidal system
- 2256 Effects of crown coating on quality of Shatangju fruit during storage on tree
- SHAN Xi, QIN Wen-bin, ZHANG Zhen-chao, YAO Yue-mei, XIAO Yan, DAI Zhong-liang WANG Yu-han, LI Zi-hao, LI Shi-biao, CHEN Chi-hang, WANG Yu-lin, WU Ya-ni, ZHANG Yang
- ZHENG Shu-hong, YUAN Yuan, XIE Qian, YE Qing-hua, LIU Xiang-guo, CHEN Qing-xi LIANG Fang, HUANG Qiu-wei, TAN Xiao-hui, LONG Ling-yun, ZHANG Ji, DENG Xu TANG Yan, LIU Ping, CHEN Chuan-wu, NIU Ying, DENG Chong-ling, MO Yuan-mei, FAN Qi-jun

Processing · storage · quality safety

- 2263 Construction of HPLC characteristic chromatogram and bioactivity of anthocyanin extracts in Kyoho grape from different areas
- 2273 Analysis of seed viability, α-amylase activity, lipoxygenase activity, and expression levels of Lincang hulled wheat seed in bags
- 2282 Residue behavior and risk assessment of thiamethoxam in sugarcane and soil
- TAN Xi, WANG Xin-yue, ZHOU Xin, CHEN Hua-guo
- ZHOU Guo-yan, LONG Wen-jie, CHEN Dan, WU Xiao-yang, WU Shao-yun, CAI Qing HUAN Zhi-bo, LUO Jin-hui, XIE De-fang

Animal science · veterinary science · aquiculture · sericulture

- 2292 The sequence and expression characteristic of *GHR2* gene in *Oreochromis niloticus*(♀)×*O. aureus*(♂)
- 2298 SSR sequence characters for genome of *Whitmania pigra* Whitman and development of molecular markers
- 2304 Preparation and identification of Lck polyclonal antibody in Nile tilapia
- 2311 Effects of calving seasons on growth curve fitting of Holstein cattle
- 2320 Allometric growth of *Rachycentron canadum* larvae
- 2327 Acute toxicity and long-term toxicity test of Chaogui cold oral liquid
- ZHONG Huan, ZHANG Xiao-jin, XIAO Jun, TANG Zhan-ying, GUO Zhong-bao, LUO Yong-ju, ZHOU Yi
- XIONG Liang-wei, WANG Shuai-bing, YUE Li-jia, WANG Jian-guo, TAO Gui-qing, XU Liang, Wang Quan
- ZHANG Yong-de, LIN Yong, FENG Peng-fei, CHEN Zhong, DU Xue-song, HUANG Yin, PAN Chuan-yan, LUO Hong-lin
- WANG Meng-qi, TANG Cheng, NI Wei, GUO Jia-he, ZHANG Hui-min, LI Ming-xun, YANG Zhang-ping, MAO Yong-jiang
- JIANG Min-tian, ZHOU Sheng-jie, HU Jing, YANG Rui, MA Zhen-hua, MENG Xiang-jun, SU Sheng-qí
- XIAO Rui, SHI Jun, XIE Xiao-dong, WEI Xiu-ying, WEI Ying-yi, HU Ting-jun

Agricultural information technology · agriculture economics

- 2335 Environmental impact assessment of Chinese tilapia products exported to the United States
- 2342 Hyperspectral detection for moisture in rice seeds by SAGA-SVR prediction model
- YUE Dong-dong, LI Xu-jun, GENG Rui
- LU Bing, SUN Jun, YANG Ning, WU Xiao-hong