

中文核心期刊
中国科技核心期刊
中国农业科技核心期刊
全国优秀科技期刊奖

全国农业学会优秀期刊奖
中国核心期刊(遴选)数据库源期刊
热带农业文摘(荷兰)源期刊
国际热带农业中心CIAT收录期刊

ISSN 1000-2561
CODEN RZXUEX

热带作物学报

REDAI ZUOWU XUEBAO

CHINESE JOURNAL OF TROPICAL CROPS



主 办 中国热带作物学会

第 33 卷 第 5 期(月刊) Vol.33 No.05(Monthly)

2012.05

I SSN 1009-2196



9 771000 256124



万方数据

主 管 中国科学技术协会
主 办 中国热带作物学会
承 办 中国热带农业科学院
编 辑 《热带作物学报》编辑部
主 编 王庆煌
执行主编 王文壮
副主编 邱小强 郭安平 彭 明 方 佳
策 划 李永龙 叶庆亮
网 址 <http://qk.catas.cn>
电子信箱 rdzx136@163.com
联系电话 0898-66989992
出 版 中国热带农业科学院科技信息研究所
《热带作物学报》编辑部(海南省海口市
龙华区学院路4号 邮编:571101)

CHINESE JOURNAL OF TROPICAL CROPS
(Monthly, Founded in 1980)

May. 2012, Vol.33, No.05

Affiliate with China Association for Science
and Technology

Sponsored by China Society of Tropical Crops

Co-sponsored by Chinese Academy of Tropical
Agricultural Sciences

Edited by Editorial Board of Chinese Journal of
Tropical Crops

Editor-in-chief WANG Qinghuang

Excutive Editor-in-chief Wang Wenzhuang

Vice Editor-in-chief QIU Xiaoliang GUO Anping,
PENG Ming, FANG Jia

Planning Editor LI Yonglong YE Qingliang

Website <http://qk.catas.cn>

E-mail rdzx136@163.com

Tel 0898-66989992

Published by Editorial Board, Chinese Journal of
Tropical Crops, Institute of Scientific and
Technical Information, CATAS (No. 4, Xueyuan
Road, Haikou, Hainan 571101, P. R. China)

Distributed at home by Hainan Newspapers &
periodicals Subscription and Disctribution Bureau

Distributed Abroad by China International
Book Trading Corporation

Printed by Hainan Jinyongan Printing Co.,Ltd.

Issue price oversea US\$ 50.00/issue

发行范围 国内外公开发刊

国内发行 海南省报刊发行局

海外总发行 中国国际图书贸易总公司

出版日期 每月25日

印刷 海南金永安印刷有限公司

广告经营许可证号 460000200104

ISSN 1000-2561

国内统一刊号 CN 46-1019/S

邮发代号 84-29

海外发行代号 BM 8915

国内定价 20.00元

热带作物学报

2012年05月 第33卷第05期 (月刊 1980年创刊)

目 次

遗传育种、作物营养与栽培

中国部分胡椒属植物表型性状的数量分类……郝朝运,谭乐和,范 睿,等(779)
高异交率、抗稻瘟病水稻三系

不育系全丰A的选育与利用……张以华,黄利兴,雷上平,等(786)

陕西茶树种质资源抗寒性综合评价……武 艳,肖 斌,游新才,等(792)

海南莎草属植物资源调查及饲用价值评价……虞道耿,罗丽娟,刘国道,等(799)

砂页岩发育的砖红壤上氮和钾素

垂直运移特征初步研究……华元刚,闫 良,茶正平,等(804)

用灰色系统理论分析竹荪的产质量

与猪粪渣用量关系……江枝和,翁伯琦,吴少分,等(811)

海南琼中县什运乡土壤养分状况研究……谭丽霞,符传良,潘顺秋,等(816)

水培条件下水稻根系

钾素吸收稳态模型研究……章明清,李 娟,孔庆波,等(821)

稻草覆盖量对冬作马铃薯产量、商品率

及经济效益的影响……张新明,陈 洪,全 锋,等(829)

不同砧木嫁接对无籽西瓜部分生理指标的影响……张小红,赵依杰,林 强,等(832)

生物技术与组织培养

巴西橡胶树木质部和树皮

比较蛋白质组学研究……王 斌,王海燕,王 丹,等(837)

抗花叶病转SrMV-P₁基因

甘蔗的产量和糖分分析……杨川毓,张 铃,郭 莺,等(843)

白藜芦醇合酶基因对草莓遗传转化的研究……林碧英,钱 昆,连肖华,等(848)

咖啡 ISSR 与 RAPD-PCR 反应体系优化……闫 林,黄丽芳,谭乐和,等(854)

咖啡叶片原生质体分离条件的研究……范 睿,闫 林,谭乐和,等(860)

甜叶菊离体诱变与分子初检……何克勤,胡能兵,周玉丽,等(866)

Eu₂O₃ 及其添加方式对马铃薯愈伤组织的诱导……柴瑞娟,王玉良,程新利(871)

香蕉胚性细胞悬浮培养方法的改进……李敬阳,唐粉玲,John S. Hu,等(876)

橡胶树小茎绿色芽条增殖技术研究……张 能,黄 志,梁秋玲,等(881)

植物生理生化

不同品种油茶叶绿素荧光参数的比较研究……刘立云,李 艳,杨伟波,等(886)

树舌胞外富锌多糖体外抗氧化活性研究……李正鹏,吴 萍,孙玉军,等(890)

钙对低温胁迫下木薯抗寒相关生理指标的影响……冀乙萌,惠杜娟,李瑞梅,等(894)

作物病虫害及防治、环境保护

金龟子绿僵菌对红棕象甲的室内致病力测定……张 晶,章伟权,阎 伟,等(899)

番茄、茄子和辣椒枯萎病原菌

分子鉴定及其致病性测定……杨莹莹,刘 波,肖荣凤,等(906)

香蕉嗜铁内生细菌BEB99的分离鉴定

及其抗病促生能力评价……戴英葵,刘先宝,张科立,等(913)

肿柄菊茎叶提取物除草活性的研究……王 丽,范志伟,沈奕德,等(919)

农产品加工、贮藏、保鲜与分析检测

茶树油对香蕉果实的保鲜效果……静 玮,苏子鹏,程盛华,等(924)

利用啤酒废弃物培养Bt的条件与补料优化……吴丽云(930)

菠萝种质果实可溶性糖组分及含量分析……陆新华,吴青松,刘胜辉,等(936)

不同辐射剂量下秀珍菇

营养价值效应的主成分分析……王正荣,江枝和,鄢 铮,等(941)

农业气象

采用可拓学方法进行橡胶林风害影响评估……张京红,陶忠良,刘少军,等(945)

综述

菠萝开花诱导及其生理与分子基础……张治礼,范鸿雁,华 敏,等(950)

花粉管通道法转基因育种研究进展……简纯平,李开锦,欧文军(956)

植物嫁接技术机理研究进展……朱高满,李芳东,杜红岩,等(962)

责任编辑 叶庆亮 黄东杰

封面摄影 林红生

英文审校 张运雄 排版 刘 宁 周海慧

编 务 薛 刚 林海妹

CONTENTS

Genetic Breeding, Crop Nutrition and Culture

- Mathematic Classification of Some Species in *Piper* Genus with Morphological Characters.....HAO Chaoyun, TAN Lehe, FAN Rui, *et al* (779)
- Breeding and Utilization of the CMS Line Quanfeng A
with Fine Blast Resistance in Rice.....ZHANG Yihua, HUANG Lixing, LEI Shangping, *et al* (786)
- Comprehensive Evaluation of the Cold Resistance
of 29 *Camellia sinensis* (L.)Kuntze Germplasm Resources in Shaanxi.....WU Yan, XIAO Bin, YOU Xincui, *et al* (792)
- Survey of *Cyperus* Genus Resources in Hainan and Assessment of Their Nutritional Values.....YU Daogeng, LUO Lijuan, LIU Guodao, *et al* (799)
- Vertical Leaching Character of N and K Element in *Latosol* Developed from *Sandshale*.....HUA Yuangang, YAN Liang, CHA Zhengzao, *et al* (804)
- Analysis on the Relationship between Yield and Quality of *Dictyophora indusiata* and
the Application of Pig Manure Compost by Grey System Theory.....JIANG Zhihe, WENG Boqi, WU Shaofen, *et al* (811)
- Soil Nutrient Status at Zhayun, Qiongzong County of Hainan Province.....TAN Lixia, FU Chuanliang, PAN Shunqiu, *et al* (816)
- A Steady-state Modeling for Potassium uptake on Rice Root under Water Culture Condition.....ZHANG Mingqing, LI Juan, KONG Qingbo, *et al* (821)
- Effects of Straw Coverage Doses on Yield,
Quality and Profit Parameters with Winter Potato.....ZHANG Xinming, CHEN Hong, QUAN Feng, *et al* (829)
- Influence of Several Physiological Indicators on
Grafted Seedless Watermelon of Different Stocks.....ZHANG Xiaohong, ZHAO Yijie, LIN Qiang, *et al* (832)

Applied Biotechnology and Tissue Culture

- Preliminary Proteomic Analysis of Bark and Wood Tissues From the Stem of
Rubber Tree (*Hevea brasiliensis* Müll. Arg.).....WANG Bin, WANG Haiyan, WANG Dan, *et al* (837)
- Evaluation on Yield and Sugar Characteristics in Transgenic Sugarcane Mediated with
SrMV-P₁ Gene from Sugarcane Mosaic Virus.....YANG Chuanyu, ZHANG Ling, GUO Ying, *et al* (843)
- Transformation of Resveratrol Synthase Gene in *Fragaria ananassa*.....LIN Biying, QIAN Kun, LIAN Xiaohua, *et al* (848)
- Optimization of RAPD and ISSR-PCR Reaction Systems for Coffee.....YAN Lin, HUANG Lifang, TAN Lehe, *et al* (854)
- Optimization Conditions of Coffea Mesophyll Protoplast Isolation.....FAN Rui, YAN Lin, TAN Lehe, *et al* (860)
- Mutating of Stevia Rebaudiana Bertoni *in vitro* and Molecular Detection.....HE Keqin, HU Nengbing, ZHOU Yuli, *et al* (866)
- Effect of Eu₂O₃ and Addition Manner on Callus Induction of Potato (*Solanum tuberosum*).....CHAI Ruijuan, WANG Yuliang, CHENG Xinli, *et al* (871)
- Improved Method on Establishment of Banana Embryogenic Cell Suspension Cultures.....LI Jingyang, TANG Fenling, John S. Hu, *et al* (876)
- Multiplication of Small Rubber Tree Green Buds.....ZHANG Neng, HUANG Zhi, LIANG Qiuling, *et al* (881)

Plant Phytophysiology and Biochemistry

- Comparisons of the Chlorophyll Fluorescence Parameters in Different *Camellia oleifera* Varieties.....LIU Liyun, LI Yan, YANG Wei-bo, *et al* (886)
- Antioxidant Activity *in Vitro* of Zinc Rich Exopolysaccharide from *Ganoderma applanatum*.....LI Zhengpeng, WU Peng, SUN Yujun, *et al* (890)
- Effects of Ca²⁺ on Cold-resistance Related Physiological Indices in *Cassava* under Chilling Stress.....JI Yimeng, XI Dujuan, LI Ruimei, *et al* (894)

Crop Pests, Diseases and Their Control, Environmental Protection

- Detection of Pathogenicity of *Meatrhiziums* against *Rhynchophorus ferrugineus* in Laboratory.....ZHANG Jing, QIN Wei-quan, YAN Wei, *et al* (899)
- Pathogen Molecular Identification and Pathogenicity Testing of *Fusarium wilt*
from Tomatoes, Eggplants and Peppers.....YANG Yingying, LIU Bo, XIAO Rongfeng, *et al* (906)
- Isolation and Identification of Endophytic Bacterium Strain BEB99 from Banana and
Evaluation of Its Antagonistic Activity and Growth-promoting Ability.....DAI Yingkui, LIU Xianbao, ZHANG Keli, *et al* (913)
- Herbicidal Activity of the Extracts of the Stems and Leaves from *Tithonia diversifolia*.....WANG Li, FAN Zhiwei, SHEN Yide, *et al* (919)

Agricultural Product Processing, Storage and Detection

- Preservation Effect of Tea Tree Oil on Banana Fruit.....JING Wei, SU Zipeng, CHENG Shenghua, *et al* (924)
- Optimization of Fermentation Conditions and Feed Batch Modes of Bt Using Brewery Waste Medium.....WU Liyun (930)
- Analysis for Components and Contents of Soluble Sugars in Pineapple Germplasm.....LU Xinhua, WU Qingsong, LIU Shenghui, *et al* (936)
- The Principal Component Analysis of *Pleurotus geesteranus*' Nutritional Value Effect
under Different Radiation Doses.....WANG Zhengrong, JIANG Zhihe, YAN Zheng, *et al* (941)

agricultural Meteorology

- Disaster Assessment of 1108 Strong Tropical Storm 'Nock-ten' on
Rubber Plantation in Hainan Island by Extension Method.....ZHANG Jinghong, TAO Zhongliang, LIU Shaojun, *et al* (945)

Review

- Induction of Pineapple Flowering and Underlying Physiological and Molecular bases.....ZHANG Zhili, FAN Hongyan, HUA Min, *et al* (950)
- Research Progress in Pollen-tube Pathway Method in Transgenic Plants.....JIAN Chunping, LI Kaimian, OU Wenjun, *et al* (956)
- Progress in Mechanisms of Grafting Technology in Plant.....ZHU Gaopu, LI Fangdong, DU Hongyan, *et al* (962)