

- 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

Q K 1 8 0 2 2 8 1

# 热带作物学报

REDAI ZUOWU XUEBAO

CHINESE JOURNAL OF TROPICAL CROPS



ISSN 1000-2561



主办 中国热带作物学会

第38卷 第10期(月刊) Vol.38 No.10(Monthly)

2017.10

# 热带作物学报

2017年10月 第38卷 第10期 (月刊 1980年创刊)

## 目 次

### 植物生理生化

- 橡胶树魏克汉种质苗期初生乳管分化能力研究..... 金华斌, 田维敏, 胡彦师, 方家林, 史敏晶(1769)  
不同旱害级别对开割和未开割橡胶树形态和生理特性的影响..... 王立丰, 安 锋, 王纪坤, 邹 智, 赖华英, 谢贵水(1777)  
不同施氮量对幼龄胡椒叶片碳代谢的影响..... 鱼 欢, 王 灿, 李志刚, 杨建峰, 祖 超, 郑维全(1784)  
不同柱花草种质的抗旱性分析..... 陈志坚, 罗佳佳, 彭玺如, 刘攀道, 邬恒福, 刘国道, 白昌军(1790)  
'砂糖橘'夏梢生长对幼果和离区细胞壁降解酶活性及基因表达的影响  
..... 黄永敬, 陈杰忠, 曾继吾, 吴 文, 张瑞敏, 朱从一(1796)

- 干热区柠檬枝梢类型对花果及果实品质的影响..... 杜玉霞, 赵 俊, 朱进彬, 李 晶, 刘红明, 李进学, 郭凤根(1804)  
假蒟提取物除草活性初探..... 冯 岗, 陈 敏, 任承才, 闫 超, 刘 霞, 叶火春, 张 静(1811)  
辣椒形态学耐涝评价体系的建立与应用..... 宋 刹, 张白鸽, 李 颖, 徐小万, 曹 健(1815)  
外源5-氨基乙酰丙酸对干旱胁迫下降香黄檀幼苗生长、根系生理特性的影响  
..... 王宏信, 剧春晖, 李向林, 陈 博, 冷 凝(1823)

- 矮化大豆'HK808'中3种内源激素与矮化性状形成的关系..... 闻 静, 赵 刚, 焦 丹, 李凤兰, 王瑞庆, 胡宝忠(1830)  
遮荫下东非狼尾草叶片形态和光合特征变化..... 许 喆, 代微然, 和柏先, 孙文君, 任 健(1836)  
不同采收期对药用植物-益智种子质量的影响研究..... 程汉亭, 刘景坤, 严廷良, 张俏燕, 王进闻(1840)

### 作物栽培与营养、遗传育种

- 17种豆科牧草引种海南岛适应性评价研究..... 张 瑞, 严琳玲, 虞道耿, 罗小燕, 白昌军(1846)  
2个云瑞品系在云南陇川旱地水田蔗区的丰产性及稳产性分析  
..... 俞华先, 经艳芬, 安汝东, 郎荣斌, 桃联安, 边 芯, 周清明(1855)

- 大花蕙兰品种间杂交优良F<sub>1</sub>代核型分析  
..... 韩菊兰, 王 辉, 白 为, 许震寰, 尚 迪, 车 明, 刘 静, 叶昌华, 李 璇(1861)  
施用土壤调节剂对咖啡苗生长及连作酸化土壤酶活性的影响  
..... 赵青云, 邢治彭, 孙 燕, 林兴军, 朱飞飞, 龙宇宙, 董云萍(1868)

- 连栽桉树人工林土壤有机碳氮储量及其分布特征..... 吕小燕, 何 斌, 吴永富, 兰 俊, 滕秋梅(1874)  
贵州省错季番茄气候生产潜力差异分析..... 张 波, 谷晓平, 古书鸿(1881)

### 生物技术、组织培养

- 巴西橡胶树HbCPT7基因的克隆与表达分析..... 邓小敏, 金华斌, 史敏晶, 杨署光, 田维敏(1889)  
<sup>60</sup>Co-γ辐射对木薯体细胞胚子叶再生的诱变效应..... 曾文丹, 谢向誉, 严华兵(1895)  
胡椒实时荧光定量PCR内参基因的筛选..... 胡丽松, 范 睿, 伍宝朵, 吴 刚, 谭乐和, 郝朝远(1901)  
基于正交设计的康乃馨试管苗增殖和开花诱导研究  
..... 陈雨露, 彭洁平, 刘 芳, 尹 鼎, 唐映红, 袁有美, 毛凯权, 陈建荣(1907)

- 白菜游离小孢子培养高频胚诱导技术体系优化..... 唐 兵, 陶 莲, 卢 松, 杨 静, 吴康云, 张 丽, 邓 英(1913)  
4种防腐剂在铁皮石斛开放式组织培养中的抑菌效果..... 杨丽霞, 杨 丽, 李永梅, 祝建波, 冯玉杰(1921)

### 农产品加工、保鲜、贮藏与分析检测

- 不同基因型依兰鲜花挥发性香气成分分析..... 郝朝远, 秦晓威, 贺书珍, 范 睿, 谭乐和, 吴 刚, 白亭玉(1926)  
水黄连抑菌物质提取工艺及其抑菌效果的研究..... 陈楚英, 万春鹏, 付永琦, 甘 武, 彭 旋, 陈金印(1932)  
'建阳桔柚'果皮黄酮类化合物的提取工艺及其稳定性研究..... 纪 颖, 黄华明, 颜瑞婷, 朱艺玲(1940)  
窨制原料对茉莉花茶香气品质的影响..... 陈梅春, 朱育菁, 刘 波, 刘晓港, 陈 峥, 张海峰(1947)  
氟铝交互处理对茶叶主要化学成分的影响..... 卢 莉, 刘金仙, 程 曦, 唐志昆, 周积耳(1956)  
高效液相色谱-串联质谱法测定水果蔬菜中烯肟菌胺残留..... 蔡恩兴(1963)  
杀青方法对青钱柳茶品质的影响研究..... 张 黑, 张运雄, 李国民, 冯顺承, 彭 胜, 谭海秀, 胡建全(1969)  
外源抗氧化剂处理对降解番茄体内残留百菌清的影响  
..... 陈 鹏, 刘树正, 杜康健, 张天文, 于高波, 魏金鹏, 闫龙祥, 黄 凯, 裴 童, 李 丹, 邵文静(1974)

### 园林景观

- 海南高校校园植物景观的营造..... 翁浚溥, 陈展川, 侯则红(1979)  
综述  
油梨功能成分和产品特性研究进展..... 李伟明, 李 丽, 马小卫, 詹儒林, 王松标(1986)

# CHINESE JOURNAL OF TROPICAL CROPS

Oct. 2017 Vol.38 No.10 (Monthly, Established in 1980)

## CONTENTS

### Phytophysiology and Biochemistry

- Primary Laticifer Differentiation in Seedling of Wickham Germplasm of Rubber Tree ..... JIN Huabin, TIAN Weimin, HU Yanshi, FANG Jialin, SHI Minjing(1769)  
Effects of Different Drought Grades on the Morphological and Physiological .....  
Characterizations of Tapping Tree and Virgin Tree of *Hevea brasiliensis* ..... WANG Lifeng, AN Feng, WANG Jikun, ZOU Zhi, LAI Huaying, XIE Guishui(1777)  
Nitrogen Rate on Young Pepper Metabolism of Carbon ..... YU Huan, WANG Can, LI Zhigang, YANG Jianfeng, ZU Chao, ZHENG Weiquan(1784)  
Analysis of Drought Resistance in Six *Stylosanthes* Accessions ..... CHEN Zhijian, LUO Jiajia, PENG Xiru, LIU Pandao, HUAN Hengfu, LIU Guodao, BAI Changjun(1790)  
Effects of Summer Shoot Growth on Activities and Gene Expression of the Cell Wall .....  
Degradation Enzymes in 'Shatangju' Mandarin Fruitlet and Abscission Zone ..... HUANG Yongjing, CHEN Jiezhong, ZENG Jiwu, WU Wen, ZHANG Ruimin, ZHU Congyi(1796)  
Effects of Lemon Branch Types on Flower, Fruit and Fruit Quality in Dry-hot Valley ..... DU Yuxia, ZHAO Jun, ZHU Jinbin, LI Jing, LIU Hongming, LI Jinxue, GUO Fenggen(1804)  
Herbicidal Activity of Extract of *Piper sarmentosum* ..... FENG Gang, CHEN Min, REN Chengcai, YAN Chao, LIU Xia, YE Huochun, ZHANG Jing(1811)  
Establishment Morphological Evaluation System of Waterlogging Tolerance and .....  
Its Application in *Capsicum annuum* ..... SONG Zhao, ZHANG Baige, LI Ying, XU Xiaowan, CAO Jian(1815)  
Effects of Exogenous 5-aminolevulinic Acid on Growth and Root Physiological .....  
Characteristics of *Dalbergia odorifera* T.chen Under Drought Stress ..... WANG Hongxin, JU Chunhui, LI Xianglin, CHEN Bo, LENG Ning(1823)  
Contents Analysis of Endogenous Hormone in Dwarf Soybean ..... WEN Jing, ZHAO Gang, JIAO Dan, LI Fenglan, WANG Ruiqing, HU Baozhong(1830)  
Leaf Morphological and Photosynthetic Characteristics of *Pennisetum clandestinum* .....  
Affected by Shade Environment ..... XU Zhe, DAI Weiran, HE Baixian, SUN Wenjun, REN Jian(1836)  
Effects of Different Picking on Seed Quality of Medicinal Plants *Alpinia oxyphylla* Miq. ..... CHENG Hanting, LIU Jingkun, YAN Tingliang, ZHANG Qiaoyan, WANG Jinchuang(1840)

### Crop Culture and Nutrition, Genetic Breeding

- Adaptability Evaluation of Seventeen Legume Forage Species in Hainan Island ..... ZHANG Yu, YAN Linling, YU Daogeng, LUO Xiaoyan, BAI Changjun(1846)  
High and Stable Yield Analysis of Two Yun-rui Varieties .....  
in Longchuan Dry Paddy Sugarcane Area of Yunnan ..... YU Huaxian, JING Yanfen, AN Rudong, LANG Rongbin, TAO Lianan, BIAN Xin, ZHOU Qingming(1855)  
Karyotype Analysis of Good Hybridized Combinations F<sub>1</sub> Generation of *Cymbidium Hybridum* .....  
..... HAN Julian, WANG Hui, BAI Wei, XU Zhenhuan, SHANG Di, ZHUO Ming, LIU Jing, YE Changhua, LI Zhen(1861)  
Effects of Different Soil Conditioner Application on Coffee Seedlings Growth .....  
and Soil Enzyme Activities in Acidic Continuous Cropping Soil ..... ZHAO Qingyun, XING Yizhang, SUN Yan, LIN Xingjun, ZHU Feifei, LONG Yuzhou, DONG Yunping(1868)  
The Soil Organic Carbon and Nitrogen Storage and The Evolution Characteristics of *Eucalyptus* .....  
Plantations Under Successive Rotation ..... Lü Xiaoyan, HE Bin, WU Yongfu, LAN Jun, TENG Qiumei(1874)

# CHINESE JOURNAL OF TROPICAL CROPS

Oct. 2017 Vol.38 No.10 (Monthly, Established in 1980)

Variance Analysis of Climatic Potential Productivity of Tomato of Stagger Season in Guizhou Province

.....ZHANG Bo, GU Xiaoping, GU Shuhong(1881)

## Biotechnology, Tissue Culture

Cloning and Expression Analysis of *HbCPT7* Gene from *Hevea brasiliensis*

.....DENG Xiaomin, JIN Huabin, SHI Minjing, YANG Shuguang, TIAN Weimin(1889)

Mutagenic Effects on Somatic Embryo Cotyledon Regeneration of Cassava

Induced by <sup>60</sup>Co-γ Irradiation.....ZENG Wendan, XIE Xiangyu, YAN Huabing(1895)

The Identification of Internal Control Genes for Real-time PCR Normalization in Black Pepper

.....HU Lisong, FAN Rui, WU Baoduo, WU Gang, TAN Lehe, HAO Chaoyun(1901)

An Orthogonal Design Study of Proliferation and Flowering *in vitro* of *Dianthus caryophyllus* L.

.....CHEN Yulu, PENG Jieping, LIU Fang, KUANG Ding, TANG Yinghong, YUAN Youmei, MAO Kaiquan, CHEN Jianrong(1907)

Optimization of High Frequency Embryo Induction System

for Isolated Microspore Culture in Chinese Cabbage

.....TANG Bing, TAO Lian, LU Song, YANG Jing, WU Kangyun, ZHANG Li, DENG Ying(1913)

The Antibacterial Activities of Four Kinds of Food Preservatives in the Open

Tissue Culture of *Dendrobium officinale*.....YANG Lixia, YANG Li, LI Yongmei, ZHU Jianbo, FENG Yujie(1921)

## Agricultural Product Processing, Preservation, Storage, Analysis and Detection

Analysis of Volatile Aroma Compounds in *Cananga odorata* (Ylangylang) of Different Genotypes

.....HAO Chaoyun, QIN Xiaowei, HE Shuzhen, FAN Rui, TAN Lehe, WU Gang, BAI Tingyu(1926)

Optimizing Extraction Conditions of Antifungal Substance from *Thalictrum smithii* B.

by Response Surface Methodology and Its Inhibitory Effect

.....CHEN Chuying, WAN Chunpeng, FU Yongqi, GAN Wu, PENG Xuan, CHEN Jinyin(1932)

The Extraction and Stability of Flavonoids from 'Jianyang Tangelo' Peel

.....JI Ying, HUANG Huaming, YAN Ruiting, ZHU Yiling(1940)

Effect of Raw Scents on the Aroma Quality of Chinese Jasmine Tea

.....CHEN Meichun, ZHU Yujing, LIU Bo, LIU Xiaogang, CHEN Zheng, ZHANG Haifeng(1947)

Effect of Al and F Interaction on the Main Chemical Components in Tea Leaves

.....LU Li, LIU Jinxian, CHENG Xi, TANG Zhikun, ZHOU Jier(1956)

Analysis of Fenaminstrobin Residue in Fruits and Vegetables by High Performance

Liquid Chromatography-tandem Mass Spectrometry .....CAI Enxing(1963)

Effects of Different Fixing Methods on Quality of *Cyclocarya paliurus* (Batal.) Iljinskja

.....ZHANG Dai, ZHANG Yunxiong, LI Guomin, FENG Shuncheng, PENG Sheng, TAN Haixiu, HU Jianquan(1969)

Effects of External Antioxidant Treatment on Degradation of Residual

Chlorothalonil in Tomato.....CHEN Peng, LIU Shuzheng,

DU Kangjian, ZHANG Tianwen, YU Gaobo, WEI Jinpeng, YAN Longxiang, HUANG Kai, PEI Tong, LI Dan, SHAO Wenjing(1974)

## Landscape Architecture

Construction of Plant Landscape on Campus in Hainan.....WENG Junpu, CHEN Zhanhuan, HOU Zehong(1979)

## Reviews

Research Advances on Functional Components and Product

Properties of Avocado (*Persea americana* Mill.) .....LI Weiming, LI Li, MA Xiaowei, ZHAN Rulin, WANG Songbiao(1986)

# 热带农业重要学术载体 ——科技期刊

中国热带农业科学院是农业部直属的综合性农业科研机构，长期坚持“立足海南、服务热区、走向世界”的方向，以科技兴农、振兴农村经济为己任，以科学技术支撑农业创新，以科技服务帮助农民致富。我院主(承)办的《热带作物学报》(月刊)、《热带农业科学》(月刊)、《热带农业工程》(双月刊)、《世界热带农业信息》(月刊)等4种科技期刊，全面宣传、推广党和国家关于三农的方针政策和热带农业新技术、新成果、新品种、新经验、新信息，是全面了解国内外热带农业发展情况的好帮手，是从事热带农业行政管理干部、生产者、经营者、科研教学人员的必备刊物。



The screenshot shows the homepage of the Chinese Journal of Tropical Crops. At the top, there's a green banner with the journal's name in large white characters and "Chinese Journal of Tropical Crops" in smaller English text. Below the banner is a photograph of a tropical forest. The main navigation menu includes links for "首页", "期刊简介", "获奖情况", "作者园地", "订阅信息", "广告服务", and "联系我们". On the left, there's a sidebar with links for "用户登录", "作者稿件查询", "作者投稿", "读者专区", "专家审稿", and "编辑办公". The central content area features a thumbnail of the journal cover for 2011年第6期, showing tropical plants. To the right of the cover, there's a brief introduction to the journal, mentioning it's a monthly publication by the Chinese Society of Tropical Agriculture and the Chinese Academy of Agricultural Sciences, indexed in various databases, and has an impact factor of 0.655. Below this is a "当期目录 2011年第6期" section with a link to "过刊浏览". Further down are sections for "获奖情况", "当期目录 2011年第6期", "过刊浏览", "生物技术应用及组织培养", and several research abstracts. On the far right, there are three vertical columns: "合营中心", "下载中心", and "合作单位风采".

远程稿件采编系统

期刊网址: <http://qk.catas.cn>

**通讯地址:** 海南省海口市龙华区学院路4号 0898-6696 3858; 6698 9992