



ISSN 1009-9980
CN41-1308/S

果树学报

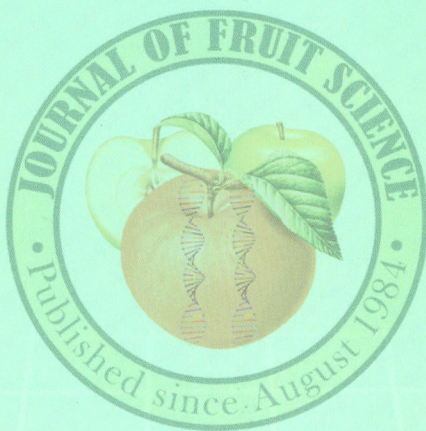
GUOSHU XUEBAO

JOURNAL OF FRUIT SCIENCE

第32卷 第4期

Vol.32 No.4

2015



ISSN 1009-9980



中国农业科学院郑州果树研究所 主办

果 树 学 报

JOURNAL OF FRUIT SCIENCE

(双月刊 Bimonthly)

2015年 第32卷 第4期

目 次

种质资源·遗传育种·分子生物学

- 不同时期水分胁迫对椪柑果实柠檬酸代谢相关基因表达的影响 张规富,卢晓鹏,谢深喜 (525)
- 砂梨(*Pyrus pyrifolia*)过敏原蛋白基因(*Ppma1*)的克隆与表达分析
..... 王小龙,李节法,张才喜,王世平,许文平 (536)
- 山葡萄‘通化-3’抗寒相关基因SSH文库的构建及分析
..... 米宝琴,毛 娟,申 鹏,陈佰鸿,郝 燕,杨 瑞 (546)
- ‘荸荠’×‘东魁’杨梅杂交群体构建与SSR杂种鉴定
..... 汪国云,沈禹彤,贾慧敏,焦 云,柴春燕,包劲松,孙德利,贾惠娟,高中山 (555)
- 杧果MiLCYB2基因启动子的克隆与序列分析
..... 许文天,马小卫,武红霞,罗 纯,姚全胜,周毅刚,王松标 (561)
- 不同株系菠萝蜜染色体倍性及基因组大小分析 ... 杨转英,吴传龙,丰 锋,吕庆芳,王俊宁,叶春海 (567)

栽培·生理·生态

- 南京地区梨种质资源开花与坐果特性调查分析 ... 滕美贞,陈利彬,刘 伦,齐开杰,张绍铃,吴 俊 (572)
- 套袋对梨果皮AsA积累和相关酶活性的影响 秦 安,张虎平,陶书田,吴巨友,张绍铃 (583)
- 高温胁迫与外源油菜素内酯对‘巨峰’葡萄叶片光合生理和果实品质的影响
..... 张睿佳,李 瑛,虞秀明,娄玉穗,许文平,张才喜,赵丽萍,王世平 (590)
- 帕米尔高原非耕地设施延晚栽培葡萄的光响应特征
..... 张付春,伍新宇,潘明启,邹 刚,张 雯,艾尔麦克·才卡斯木,周晓明,韩守安,钟海霞 (597)
- 低温胁迫下‘贝达’和‘赤霞珠’葡萄不同组织糖含量及细胞结构的变化
..... 姜寒玉,雷天翔,李 唯,何百璠 (604)
- 4个酿酒葡萄品种抗寒性的比较 王 依,靳 娟,罗强勇,杨怡帆,吕新民,樊新民,鲁晓燕 (612)

叶面喷施微量元素和稀土元素混合液对酿酒葡萄果实中矿质元素及主要香气物质的影响	刘 迪,张 也,杨玉梅,潘秋红 (620)
山核桃枝叶耐旱特性分析	孙志超,程 慧,郭文磊,王红红,王正加 (633)
枇杷果实成熟过程中果肉细胞质体的发育与果肉颜色的变化	郑婷婷,魏伟淋,何业华,杨向晖,林顺权 (641)
温度对枇杷花粉管生长和胚囊寿命的影响	杨 岑,付 燕,王永清,陶 炼,邓群仙,范建新,邓仁菊 (646)
蔗糖代谢相关酶在‘石硖’龙眼假种皮糖积累中的作用	刘丽琴,李伟才,舒 波,魏永赞,武红霞,石胜友 (653)
我国杨梅主产地土壤养分状况的分析	梁森苗,王耀锋,刘玉学,吕豪豪,杨生茂 (658)

植物保护·果品质量与安全

甘肃省苹果树腐烂病菌 <i>Valsa mali</i> 培养性状及致病力研究	王卫雄,徐秉良,薛应钰,韩 健,陈 臻 (666)
不同柑橘属种质对柑橘褐斑病菌的抗性评价	胡军华,刘荣萍,王雪莲,周 娜,洪棋斌,姚廷山,李太盛,江 东,曹 立,李鸿筠 (672)
葡萄霜霉病拮抗细菌的筛选、鉴定及发酵条件优化	刘 旭,杨晓畅,陶 怡,余 旋,李 华 (681)
螺虫乙酯对山楂叶螨种群的影响	张坤鹏,武海斌,官庆涛,孙永川,孙瑞红 (689)

贮藏·加工

蓝莓皮渣花色苷提取及抗氧化活性的研究	程佑声,王鸿飞,许 凤,胡 月,卢赛赛,汤月昌,邵兴锋,李和生 (696)
--------------------------	---------------------------------------

专论与综述

对当前果树学与教学的几点思考——兼复《果树学报》编委(顾问)研讨会邀请	黄辉白 (705)
柑橘衰退病毒弱毒株筛选方法研究进展	唐 萌,金 鑫,周 彦 (707)
果园电动修剪机具与技术研究进展	杨 洲,郭晓伶,汪刘一,吴良军,陈林斌 (712)

技术与方法

露地和避雨栽培条件下葡萄苗木霜霉病病株空间分布型及其抽样技术	于舒怡,刘长远,傅俊范,王 辉,关天舒,刘 丽 (720)
--------------------------------------	-------------------------------

新品种选育报告

苹果属观赏新品种——‘红满堂’的选育	杨廷桢,高敬东,王 骞,蔡华成,李春燕,杜学梅,弓桂花,蒋建兵 (727)
梨新品种——‘冀硕’的选育	王永博,王迎涛,王亚茹,李 勇,韩彦肖,李 晓 (730)
软枣猕猴桃新品种——‘佳绿’的选育	秦红艳,杨义明,艾 军,范书田,王振兴,许培磊, 刘迎雪,赵 滢,张庆田,张宝香,李晓艳,李晓红,赵淑兰 (733)

《果树学报》编委(顾问)研讨会在河南郑州召开(640) 《果树学报》入选中国科学引文数据库(CSCD)来源期刊(2015-2016年度)核心库(688)

JOURNAL OF FRUIT SCIENCE

(Bimonthly)

Vol. 32 No. 4 2015

CONTENTS

Germplasm resources · Genetics & Breeding · Biotechnology

- Influence of water stress in different development stage on the citric acid metabolism-related genes expression in the Ponkan fruits ZHANG Guifu, LU Xiaopeng, XIE Shenxi (525)
- Cloning and expression analysis of major allergen (*Ppma1*) from Sand Pear (*Pyrus pyrifolia* Nakai) WANG Xiaolong, LI Jiefa, ZHANG Caixi, WANG Shiping, XU Wenping (536)
- Construction and analyses of SSH libraries of cold resistance related genes in *Vitis amurensis* accession ‘ Tonghua-3 ’ MI Baoqin, MAO Juan, SHEN Peng, CHEN Baihong, HAO Yan, YANG Rui (546)
- Construction of a crossing population between two Chinese bayberry cultivars ‘ Biqi ’ and ‘ Dongkui ’ and hybrid identification by polymorphic SSRs WANG Guoyun, SHEN Yutong, JIA Huimin, JIAO Yun, CHAI Chunyan, BAO Jinsong, SUN Deli, JIA Huijuan, GAO Zhongshan (555)
- Cloning and sequence analysis of MiLCYB2 gene promoter from mango (*Mangifera indica* L.) XU Wentian, MA Xiaowei, WU Hongxia, LUO Chun, YAO Quansheng, ZHOU Yigang, WANG Songbiao (561)
- Determination and analysis of ploidy and genome size of different jackfruit lines YANG Zhuanying, WU Chuanlong, FENG Feng, LÜ Qingfang, WANG Junning, YE Chunhai (567)

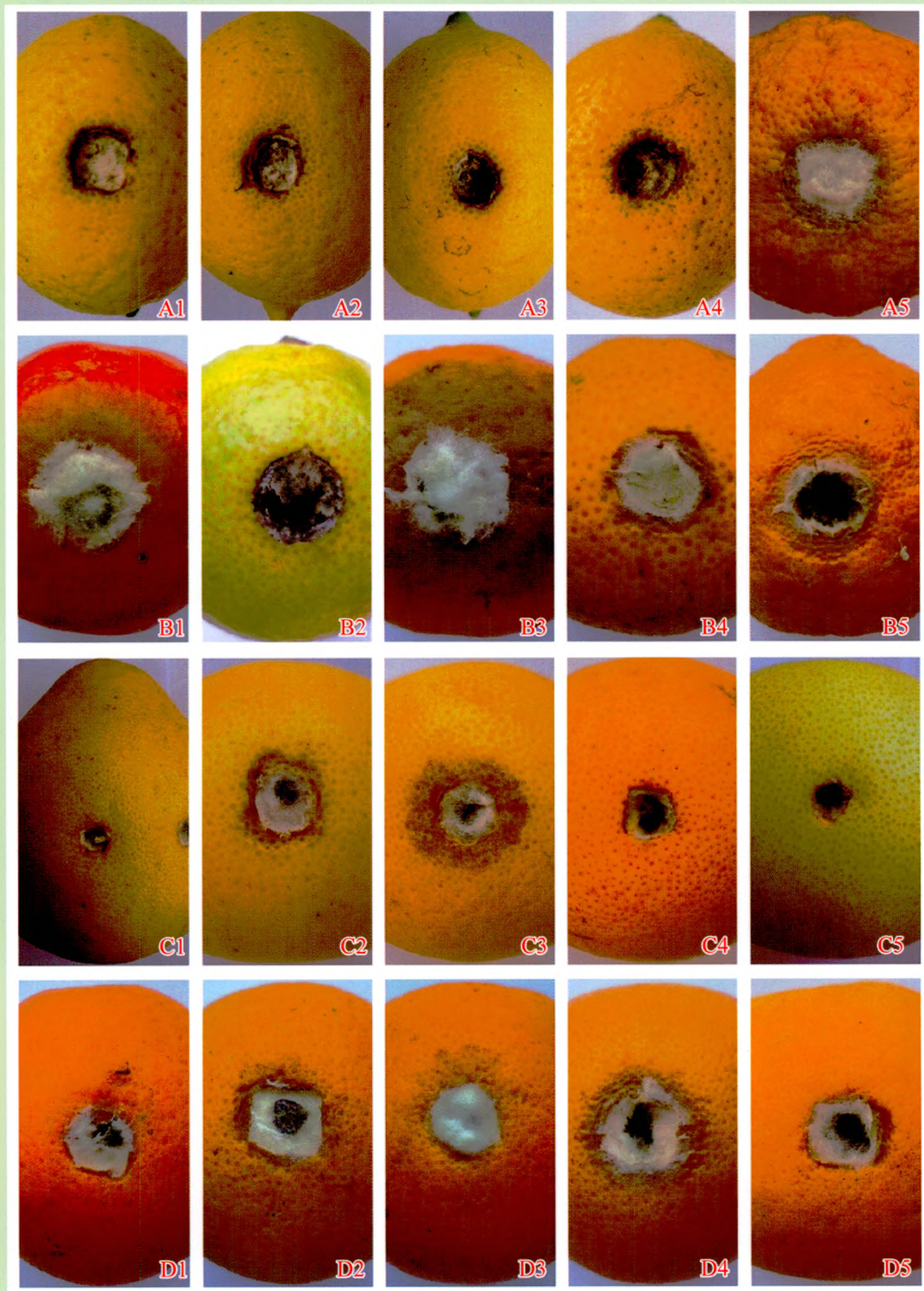
Cultivation · Physiology · Ecology

- Investigation of flowering date and fruit setting trait in different pear cultivars in Nanjing region TENG Meizhen, CHEN Libin, LIU Lun, QI Kaijie, ZHANG Shaoling, WU Jun (572)
- Effects of bagging on AsA accumulation and related enzyme activities of pear peel QIN An, ZHANG Huping, TAO Shutian, WU Juyou, ZHANG Shaoling (583)
- Effects of heat stress and exogenous brassinolide on photosynthesis of leaves and berry quality of ‘ Kyoho ’ grapevine ZHANG Ruijia, LI Ying, YU Xiuming, LOU Yusui, XU Wenping, ZHANG Caixi, ZHAO Liping, WANG Shiping (590)
- Light response characteristics of grapes under the condition of delayed cultivation in greenhouse in Pamirs uncultivated area ZHANG Fuchun, WU Xinyu, PAN Mingqi, ZOU Gang, ZHANG Wen, Ermek, ZHOU Xiaoming, HAN Shouan, ZHONG Haixia (597)
- Changes of sugar contents in different tissues and cell structure in two grape (*Vitis vinifera* L.) varieties under low temperature stress JIANG Hanyu, LEI Tianxiang, LI Wei, HE Baijun (604)
- Comparison of cold resistance among 4 grapevine cultivars WANG Yi, JIN Juan, LUO Qiangyong, YANG Yifan, LÜ Xinmin, FAN Xinmin, LU Xiaoyan (612)
- Effects of foliar spray of trace and rare earth elements on mineral elements and main volatiles in developing grape berries LIU Di, ZHANG Ye, YANG Yumei, PAN Qiuhong (620)
- Analysis of drought resistance of branch and leaf structure in *Carya cathayensis* SUN Zhichao, CHENG Hui, GUO Wenlei, WANG Honghong, WANG Zhengjia (633)

The plastid development and the changes of flesh color during fruit ripening of loquat	
..... ZHENG Tingting , WEI Weilin , HE Yehua , YANG Xianghui , LIN Shunquan	(641)
Effects of temperature on pollen tube growth and ovule longevity in loquat (<i>Eriobotrya japonica</i>) ...	
..... YANG Qin, FU Yan, WANG Yongqing, TAO Lian, DENG Qunxian,	
FAN Jianxin, DENG Renju	(646)
Role of sucrose metabolism related enzymes in accumulation of sugar in ‘ Shixia ’ of <i>Dimocarpus longan</i> Lour.	
..... LIU Liqin, LI Weicai, SHU Bo, WEI Yongzan, WU Hongxia, SHI Shengyou	(653)
Present situation of soil nutrients in bayberry orchard of China	
..... LIANG Senmiao, WANG Yaofeng, LIU Yuxue, LÜ Haohao, YANG Shengmao	(658)
Plant protection · Fruit quality & Safety	
Cultural characteristics and pathogenicity of <i>Valsa mali</i> in Gansu Province	
..... WANG Weixiong, XU Bingliang, XUE Yingyu, HAN Jian, CHEN Zhen	(666)
Evaluation of <i>Citrus</i> germplasm resistance to <i>Alternaria alternata</i>	
..... HU Junhua, LIU Rongping, WANG Xuelian, ZHOU Na, HONG Qibin,	
YAO Tingshan, LI Taisheng, JIANG Dong, CAO Li, LI Hongjun	(672)
Screening , identification and optimization of fermentation conditions for antagonistic bacteria against <i>Plasmopara viticola</i> on grape	
..... LIU Xu, YANG Xiaochang, TAO Yi, YU Xuan, LI Hua	(681)
Effects of spirotetramat on <i>Tetranychus viennensis</i> population	
..... ZHANG Kunpeng, WU Haibin, GONG Qingtao, SUN Yongchuan, SUN Ruihong	(689)
Storage · Processing	
Study on extraction and antioxidant activity of anthocyanins from blueberry pomace	
..... CHENG Yousheng, WANG Hongfei, XU Feng, HU Yue, LU Saisai,	
TANG Yuechang, SHAO Xingfeng, LI Hesheng	(696)
Special focus · Reviews	
A few randrom remarks on current fruit science research and teaching —— A reply to the editorial board of the Journal of Fruit Sciece	
..... HUANG Huibai	(705)
Progress in study of screening mild strains of <i>Citrus tristeza virus</i>	
..... TANG Meng, JIN Xin, ZHOU Yan	(707)
Review on electric pruning equipments and technology in orchard	
..... YANG Zhou, GUO Xiaoling, WANG Liuyi, WU Liangjun, CHEN Linbin	(712)
Techniques · Methods	
Spatial distribution pattern and sampling technique for grapevine downy mildew in grape seedlings under open and rain-shelter cultivations	
..... YU Shuyi, LIU Changyuan, FU Junfan, WANG Hui, GUAN Tianshu, LIU Li	(720)
Breeding Reports	
A new <i>Malus</i> ornamental variety ‘ Hongmantang ’	
..... YANG Tingzhen, GAO Jingdong, WANG Qian, CAI Huacheng, LI Chunyan,	
DU Xuemei, GONG Gui-hua, JIANG Jianbing	(727)
Breeding report of a new pear cultivar —— ‘ Jishuo ’	
..... WANG Yongbo, WANG Yingtao, WANG Yaru, LI Yong, HAN Yanxiao, LI Xiao	(730)
A new cultivar of <i>Actinidia arguta</i> Planch. ‘ Jialü ’	
..... QIN Hongyan, YANG Yiming, AI Jun,	
FAN Shutian, WANG Zhenxing, XU Peilei, LIU Yingxue, ZHAO Ying, ZHANG Qingtian,	
ZHANG Baoxiang, LI Xiaoyan, LI Xiaohong, ZHAO Shulan	(733)

胡军华，等：不同柑橘属种质对柑橘褐斑病菌的抗性评价 图版 (正文见672—680页)

HU Junhua, et al: Evaluation of *Citrus* germplasm resistance to *Alternaria alternata* Plates



图版说明

不同柑橘种质对柑橘褐斑病菌的抗性反应 A.枸橼柠檬类 A1. 维拉佛兰卡; A2. 尤力克; A3. 费诺; A4. 费米耐劳; A5. 粗柠檬; B. 宽皮橘类 B1. 兴义大红袍; B2. 汉源黄果柑; B3. 大果南丰; B4. 茶枝柑; B5. 不知火; C. 柚类 C1. 通贤柚; C2. 汤姆逊葡萄柚; C3. 火焰葡萄柚; C4. 琯溪蜜柚; C5. 胡柚; D. 甜橙类 D1. 奉节晚脐; D2. 刘金刚夏橙; D3. 华盛顿脐橙; D4. 红肉暗柳橙; D5. 佩拉甜橙

Explanation of plates

Resistance response of citrus varieties to *A. alternate* HJX A. *Citrus limon* (L.) Burm.f. A1. Villafranca; A2. Eureka; A3. Fino; A4. Femminello; A5. Rough lemon; B. *Citrus reticulata* Blanco B1. Xinyidahongpao; B2. Hanyuanhuangguogan; B3. Daguonanfeng; B4. Chazhigan; B5. Shiranui; C. *Citrus grandis* (L.) Osbeck C1. Tongxianyou; C2. Thompson grapefruit; C3. Flame grapefruit; C4. Guanximiyou; C5. Huyou; D. *Citrus sinensis* (L.) Osbeck D1. Fengjie 95-1 navel orange; D2. Llujinggang Valencia; D3. Washington Navel Orange; D4. Pink flesh anliucheng; D5. Pera Sweet Orange