



ISSN 0496-3490

CODEN TSHPA9

作物学报

ACTA AGRONOMICA SINICA

第38卷

第9期

Vol.38

No.9

中国作物学会 中国农业科学院作物科学研究所 主办
Sponsored by Crop Science Society of China and
Institute of Crop Sciences, CAAS

科学出版社出版
Published by Science Press

万方数据

9

2012



综述

- 1553 棉花抗黄萎病机制研究进展

徐理 朱龙付 张献龙

作物遗传育种·种质资源·分子遗传学

- 1561 拟南芥
- RBCS-1A*
- 基因受光调节表达模式及其启动子遗传转化应用评价

刁雨琳 周朋 宋梅芳 李志勇 孟凡华 杨建平

- 1570 大豆
- NF-YB*
- 家族全基因组鉴定、分类和表达

郑炜君 徐兆师 冯志娟 李连城 陈明 柴守诚
马有志

- 1583 甘蓝
- SCR*
- 识别与结合
- SRK*
- 胞外域核心编码区 DNA 序列的酵母双杂交检测

薛丽琰 罗兵 朱利泉 杨永军 张贺翠 常登龙
陈松 彭一波 杨红 曾静 杨昆 高启国
李成琼 任雪松 王小佳

- 1592 小麦叶绿素缺失突变体
- Mt6172*
- 及其野生型叶片蛋白质组学双向差异凝胶电泳分析

宋素洁 古佳玉 郭会君 赵林姝 赵世荣 李军辉
赵宝存 刘录祥

- 1607 大豆
- GmNF-YC2*
- 基因的克隆与功能分析

曹岩 张晓玫 陈新建 傅永福

- 1617 转
- Gastrodianin*
- 基因提高小麦赤霉病和纹枯病的抗性

周淼平 杨学明 姚金保 任丽娟 张增艳 马鸿翔

- 1625 灰飞虱胁迫下水稻防卫相关基因的表达

李万昌 余娇娇 段灿星 朱振东 王晓鸣

- 1631 甘蓝
- eSRK*
- 重组体的构建及其与
- SCR*
- 的相互作用

韦静宜 高启国 任雪松 王小佳 李成琼 宋明

- 1640 大麦染色体 1H 至 7H 外源基因渗入系的构建及其分析

赖勇 冯静霞 司二静 李葆春 孟亚雄 马小乐
杨轲 尚勋武 王化俊

- 1649 棉花
- S*
- 腺苷甲硫氨酸脱羧酶基因的克隆及低温下的表达分析

耿卫东 李艳军 张新宇 朱华国 孙杰

耕作栽培·生理生化

- 1657 施氮量对旱地小麦耗水特性和产量的影响

段文学 于振文 张永丽 王东 石玉

- 1665 水稻种子室温贮藏的适宜含水量及其生理基础

胡群文 辛霞 陈晓玲 刘旭 卢新雄

- 1672 耐低钾玉米自交系延缓叶片衰老的生理特性

王晓磊 于海秋 刘宁 依兵 曹敏建

- 1680 甘肃彩色棉花抗旱性农艺性状指标的筛选鉴定

陈玉梁 石有太 罗俊杰 王蒂 厚毅清 李忠旺
张秉贤

- 1688 固定和染色方法对小麦胚乳细胞结构显示的影响

王玲玲 刘智 熊飞 李栋梁 周卫东 陈义芳
王忠

- 1698 聚糖素水剂对不同积温带玉米叶片衰老和籽粒灌浆速率的影响

徐田军 董志强 高娇 陈传晓 焦浏 解振兴

- 1710 NO 对干旱条件下小麦幼苗
- PSII*
- 功能特性的调节效应

邵瑞鑫 信龙飞 杨青华 上官周平

研究简报

- 1716 小麦多子房和单子房性状的差异蛋白质组学研究

王志军 马守才 毕晓静 史秀秀 李清峰 韩芳

- 1723 不同胚乳类型玉米籽粒淀粉粒的粒度分布特征

元佳佳 王书平 张改生 牛娜

- 1728 不同氮水平下多效唑对食用型甘薯光合和淀粉积累的影响

崔丽娜 张红 孟佳佳 石德杨 董树亭

陈晓光 李洪民 张爱君 史新敏 唐忠厚 魏猛

史春余

- 1734 开花期低温胁迫对四川攀西稻区水稻开花结实的影响

张荣萍 马均 蔡光泽 孙永健

ACTA AGRONOMICA SINICA

Vol. 38 No. 9 September 2012

CONTENTS

REVIEW

- 1553 Research on Resistance Mechanism of Cotton to *Verticillium Wilt* XU Li, ZHU Long-Fu, and ZHANG Xian-Long

CROP GENETICS & BREEDING · GERMPLASM RESOURCES · MOLECULAR GENETICS

- 1561 Expression Patterns of *Arabidopsis RBCS-1A* Gene in Response to Light Treatments and Application Evaluation of Its Promoter in Transgenic Engineering XI Yu-Lin, ZHOU Peng, SONG Mei-Fang, LI Zhi-Yong, MENG Fan-Hua, and YANG Jian-Ping
- 1570 Genome-Wide Identification, Classification, and Expression of NF-YB Gene Family in Soybean ZHENG Wei-Jun, XU Zhao-Shi, FENG Zhi-Juan, LI Lian-Cheng, CHEN Ming, CHAI Shou-Cheng, and MA You-Zhi
- 1583 Identifications of DNA Sequences Encoding Key Region of SCR Interacting with SRK Extracellular Domain by Using Yeast Two-Hybrid System XUE Li-Yan, LUO Bing, ZHU Li-Quan, YANG Yong-Jun, ZHANG He-Cui, CHANG Deng-Long, CHEN Song, PENG Yi-Bo, YANG Hong, ZENG Jing, YANG Kun, GAO Qi-Guo, LI Cheng-Qiong, REN Xue-Song, and WANG Xiao-Jia
- 1592 Proteomic Analysis of Leaves of the Chlorophyll-Deficient Wheat Mutant Mt6172 and Its Wild-Type through 2D-Difference Gel Electrophoresis SONG Su-Jie, GU Jia-Yu, GUO Hui-Jun, ZHAO Lin-Shu, ZHAO Shi-Rong, LI Jun-Hui, ZHAO Bao-Cun, and LIU Lu-Xiang
- 1607 Cloning and Functional Analysis of *GmNF-YC2* Gene in Soybean (*Glycine max*) CAO Yan, ZHANG Xiao-Mei, CHEN Xin-Jian, and FU Yong-Fu
- 1617 Enhancement of Resistance to *Fusarium* Head Blight and Sharp Eyespot in *Gastrodianin* Transgenic Wheat ZHOU Miao-Ping, YANG Xue-Ming, YAO Jin-Bao, REN Li-Juan, ZHANG Zeng-Yan, and MA Hong-Xiang
- 1625 Expression of Rice Defence Genes under Small Brown Planthopper Stress LI Wan-Chang, YU Jiao-Jiao, DUAN Can-Xing, ZHU Zhen-Dong, and WANG Xiao-Ming
- 1631 Construction of eSRK Chimeras and Interaction between eSRK Chimeras and SCRs from *Brassica oleracea* L. WEI Jing-Yi, GAO Qi-Guo, REN Xue-Song, WANG Xiao-Jia, LI Cheng-Qiong, and SONG Ming
- 1640 Development and Analysis of Introgression Lines on Chromosomes 1H-7H in Barley LAI Yong, FENG Jing-Xia, SI Er-Jing, LI Bao-Chun, MENG Ya-Xiong, MA Xiao-Le, YANG Ke, SHANG Xun-Wu, and WANG Hua-Jun
- 1649 Molecular Cloning and Expression Analysis of *GhSAMDC* at Low Temperature Stress in Cotton (*Gossypium hirsutum* L.) GENG Wei-Dong, LI Yan-Jun, ZHANG Xin-Yu, ZHU Hua-Guo, and SUN Jie

TILLAGE & CULTIVATION · PHYSIOLOGY & BIOCHEMISTRY

- 1657 Effects of Nitrogen Application Rate on Water Consumption Characteristics and Grain Yield in Rainfed Wheat DUAN Wen-Xue, YU Zhen-Wen, ZHANG Yong-Li, WANG Dong, and SHI Yu
- 1665 Optimal Moisture Content and Physiological Bases of Rice Seeds Storage at Room Temperature HU Qun-Wen, XIN Xia, CHEN Xiao-Ling, LIU Xu, and LU Xin-Xiong
- 1672 Physiological Characteristics of Delaying Leaf Senescence in Maize Inbred Lines Tolerant to Potassium Deficiency WANG Xiao-Lei, YU Hai-Qiu, LIU Ning, YI Bing, and CAO Min-Jian
- 1680 Screening of Drought Tolerant Agronomic Trait Indices of Colored Cotton Varieties (Lines) in Gansu Province CHEN Yu-Liang, SHI You-Tai, LUO Jun-Jie, WANG Di, HOU Yi-Qing, LI Zhong-Wang, and ZHANG Bing-Xian

- 1688 •Effect of Fixation and Staining Methods on Structure Observation of Endosperm Cell of Wheat WANG Ling-Ling, LIU Zhi, XIONG Fei, LI Dong-Liang, ZHOU Wei-Dong, CHEN Yi-Fang, and WANG Zhong
- 1698 Effect of PASP-KT-NAA on Leaf Senescence and Grain Filling Rate during the Grain-Filling Period in Different Temperature Zones XU Tian-Jun, DONG Zhi-Qiang, GAO Jiao, CHEN Chuan-Xiao, JIAO Liu, and XIE Zhen-Xing
- 1710 Modulation of Exogenous Nitric Oxide on Photosystem II Functions in Wheat Seedlings under Drought Stress SHAO Rui-Xin, XIN Long-Fei, YANG Qing-Hua, and SHANG-GUAN Zhou-Ping

RESEARCH NOTES

- 1716 Differential Proteomics on Multi-Ovary and Mono-Ovary Trait of Wheat WANG Zhi-Jun, MA Shou-Cai, BI Xiao-Jing, SHI Xiu-Xiu, LI Qing-Feng, HAN Fang, QI Jia-Jia, WANG Shu-Ping, ZHANG Gai-Sheng, and NIU Na
- 1723 Starch Granule Size Distribution in Maize Kernel with Different Endosperm Types CUI Li-Na, ZHANG Hong, MENG Jia-Jia, SHI De-Yang, and DONG Shu-Ting
- 1728 Effect of Paclobutrazol under Different N-Application Rates on Photosynthesis and Starch Accumulation in Edible Sweetpotato CHEN Xiao-Guang, LI Hong-Min, ZHANG Ai-Jun, SHI Xin-Min, TANG Zhong-Hou, WEI Meng, and SHI Chun-Yu
- 1734 Effects of Low Temperature Stress during Flowering Stage on Flowering and Seed Setting of Rice in Panxi Region, Sichuan Province ZHANG Rong-Ping, MA Jun, CAI Guang-Ze, and SUN Yong-Jian

A BRIEF INTRODUCTION OF *ACTA AGRONOMICA SINICA*

Acta Agronomica Sinica (AAS, ISSN 0496-3490) is a monthly academic journal co-sponsored by Crop Science Society of China and the Institute of Crop Sciences, Chinese Academy of Agricultural Sciences, under the leadership of China Association for Science and Technology and published by Science Press, Chinese Academy of Sciences. AAS was firstly published in 1962. The predecessors were *Proceedings of China Association of Agricultural Science Societies* started in 1919, *Chinese Journal of Agricultural Research* started in 1950, and *Acta Agriculturae Sinica* started in 1952. As one of the key scientific journals in China, AAS has been financially supported by China Association for Science and Technology since 1997 and the National Natural Science Foundation of China since 2000.

The major aims of AAS are to report the progresses in the disciplines of crop breeding, crop genetics, crop cultivation, crop physiology, ecology, biochemistry, germplasm resources, grain chemistry, grain storage and processing, biotechnology and biomathematics etc. mainly in China and abroad. AAS provides regular columns for Original papers, Reviews, and Research notes. The strict peer-review procedure guarantees the academic level and raises the reputation of the journal. The readership of AAS is for crop science researchers, students of agricultural colleges and universities, and persons with similar academic level.

AAS is the leading journal of crop sciences and reflects the latest achievement in all aspects of crop sciences in China. AAS occupies the first position on the list of Chinese core journals in "Agronomy and Crops" field. The editorial board consists of 122 specialists in the field of crop sciences. Among them, 25 are academicians of Chinese Academy of Sciences or Chinese Academy of Engineering, 12 are from the outside of China, and 3 are from Hong Kong, China.

AAS is a fully Open Access Journal through the independent website (<http://www.chinacrops.org/zwxb/>) since 2004. Free full texts are published online 2 months earlier than printing version, and all articles of the journal from 1962 are available freely. Manuscript submission, tracking, and peer review process are completed online. The functions of eTOCs (Table of Contents Alerting), advanced paper search, and paper recommendation are available.

AAS are indexed in some international index systems, such as AGRIS (FAO), CAB Abstracts and Global Health of Centre for Agriculture and Bioscience International, Cambridge Scientific Abstracts, Chemical Abstracts, Food Science and Technology Abstracts, Index of Copernicus, Japan Science and Technology Agency, Scopus, and VINITI Abstracts Journal (Russia). AAS is also referenced by many domestic databases and abstract periodicals.

The purposes of AAS are to enhance the development of crop science and technology in China, to promote nationwide and worldwide academic exchanges, and to accelerate the modernization of Chinese agriculture. AAS is distributed in China and abroad. The editorial office appreciates to establish publication exchange relationship with related institutions, agricultural colleges and universities, and international organizations in China and abroad. Submissions in English from overseas are welcome.