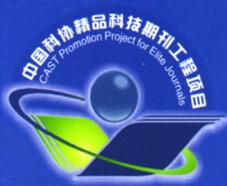


ISSN 1002-7807

CN 41-1163/S



MIANHUA XUEBAO

棉花学报

Cotton Science

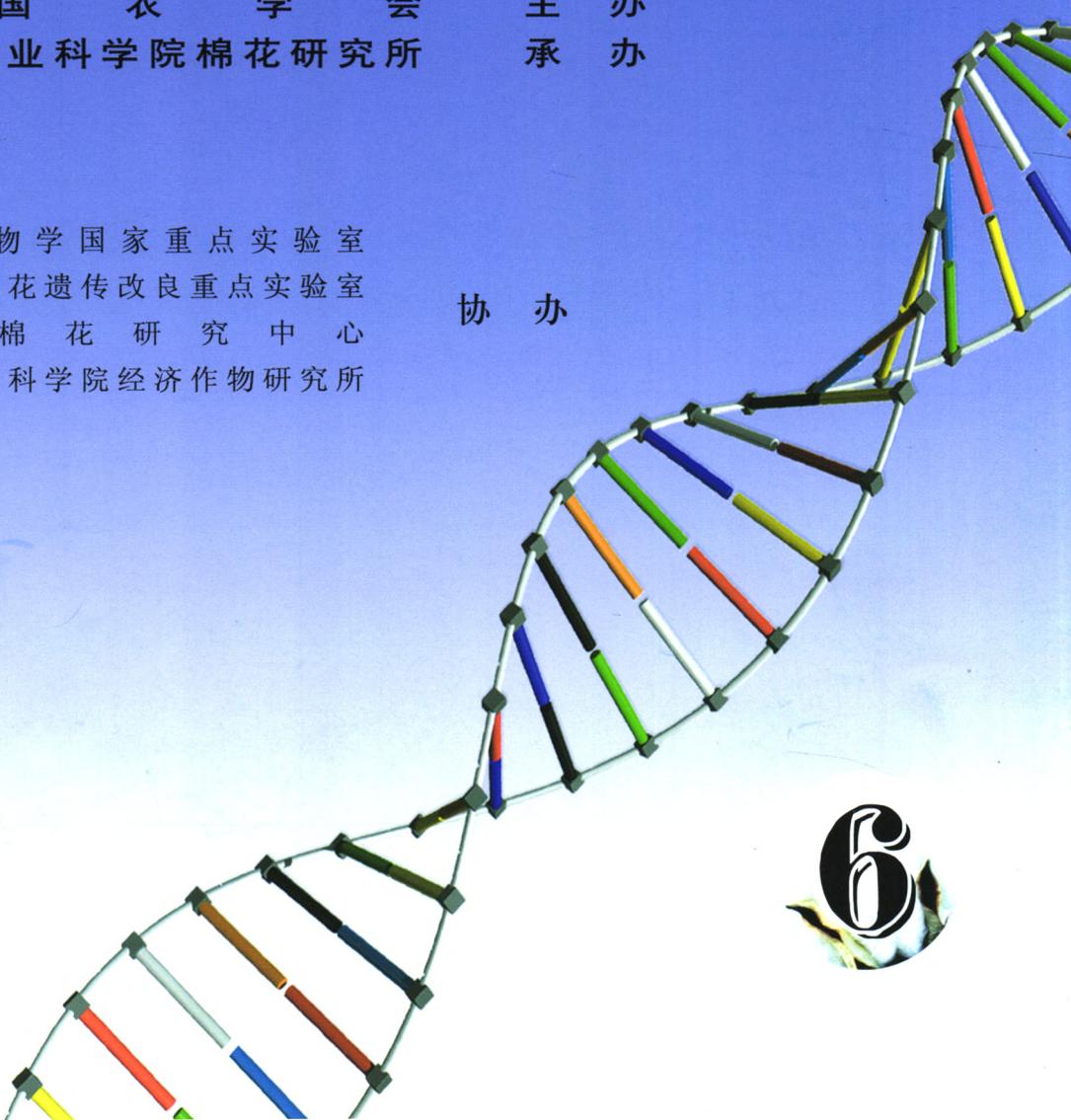
2015年 第二十七卷 第六期 Vol. 27 No. 6

中国农学会
中国农业科学院棉花研究所

主办
承办

棉花生物学国家重点实验室
农业部棉花遗传改良重点实验室
山东棉花研究中心
新疆农业科学院经济作物研究所

协办



万方数据

9 771002 780153

**目 次****·研究与进展·**

- (495) 陆地棉花器官耐高温性的评价指标研究 宋桂成, 王苗苗, 陈全战, 等
(506) 棉花无腺体近等基因系差异表达基因分析 姜鹏飞, 陆才瑞, 邹长松, 等
(515) 棉花 bZIP 转录因子基因 *GhbZIP15* 的克隆与表达分析 李月, 许朋斐, 陈全家, 等
(524) 棉花远缘杂交创制抗黄萎病新种质 肖松华, 刘剑光, 赵君, 等
(534) 基于数字图像的棉花长势空间变异分析 杨北方, 韩迎春, 毛树春, 等
(542) 棉田土壤酶活性对尿素用量的响应 李鹏程, 董合林, 刘敬然, 等
(550) 陆海渐渗系分离群体(F_2)产量和纤维品质性状的 QTL 定位 郭丽雪, 石玉真, 李俊文, 等
(561) 棉仁植酸含量的离子色谱测定方法研究 陆智辉, 阎君, 辛文慧, 等

·研究简报·

- (570) 棉花叶绿体基因组全序列微卫星分布规律研究 蔡小彦, 刘方, 周忠丽, 等
(576) 茴萝卜挥发油抗棉花黄萎病菌活性及其作用机理 杨生强
(583) 除草剂草甘膦对棉田土壤盐化和碱化指标的影响 姜伟丽, 马小艳, 任相亮, 等
(589) 水杨酸包衣剂包衣棉种对棉花幼苗抗寒性的影响 李防洲, 辛慧慧, 周广威, 等
(595) 三种生物质炭对北疆棉田土壤氮素平衡及棉花产量的影响 黄婷, 倪杰强, 许文霞, 等
(569) 中国棉花杂志社关于谨防假冒网站的声明
(601) 2015 年第 27 卷《棉花学报》总目次



Contents

•RESEARCH REPORTS•

- (495) Evaluation of the High-temperature Tolerance of Floral Organs in Upland Cotton (*Gossypium hirsutum* L.)
..... Song Guicheng, Wang Miaomiao, Chen Quanzhan, et al
- (506) Analysis of Differentially Expressed Genes from Glandless Near-isogenic Lines of Cotton
..... Jiang Pengfei, Lu Cairui, Zou Changsong, et al
- (515) Molecular Cloning and Expression of a bZIP Transcription Factor Gene *GhbZIP15* in Cotton (*Gossypium hirsutum* L.)
..... Li Yue, Xu Pengfei, Chen Quanjia, et al
- (524) Creation of a New Resistant Germplasm to *Verticillium* Wilt by Distant Hybridization in Upland Cotton
..... Xiao Songhua, Liu Jianguang, Zhao Jun, et al
- (534) Analysis of the Spatial Variability in Cotton Growth Conditions based on Digital Imaging
..... Yang Beifang, Han Yingchun, Mao Shuchun, et al
- (542) Response of Enzyme Activity of Soil to Urea Application Rate in a Cotton Field Trial
..... Li Pengcheng, Dong Helin, Liu Jingran, et al
- (550) Mapping QTL of Fiber Yield and Quality Traits in F₂ Populations of Chromosome Segment Substitution Lines from *Gossypium hirsutum* × *Gossypium barbadense* Guo Lixue, Shi Yuzhen, Li Junwen, et al
- (561) Determination of Phytic Acid in Cottonseed Kernels by Ion Chromatography
..... Lu Zhihui, Yan Jun, Xin Wenhui, et al

•RESEARCH NOTES•

- (570) Distribution of Microsatellites from the Complete Sequence of *Gossypium hirsutum* Chloroplast DNA
..... Cai Xiaoyan, Liu Fang, Zhou Zhongli, et al
- (576) *In vitro* Antifungal Activity and Antifungal Mechanism of Essential Oil from Dill (*Anethum graveolens* L.) on *Verticillium dahliae* Kleb. Yang Shenqiang
- (583) Effects of Glyphosate on Soil Salinization and Alkalization in Cotton Fields
..... Jiang Weili, Ma Xiaoyan, Ren Xiangliang, et al
- (589) Effects of the Seed Film Coating Salicylic Acid on the Chilling Tolerance of Cotton Seedlings
..... Li Fangzhou, Xin Huihui, Zhou Guangwei, et al
- (595) Effects of Addition of Three Types of Biochar on the Soil Nitrogen Balance and Cotton Yield
..... Huang Ting, Ni Jieqiang, Xu wenxia, et al



编委会

顾问: 卢良恕 路明 黄滋康 汪若海 夏敬源 王坤波

主任: 喻树迅院士 副主任: 朱玉贤院士 吴孔明院士 张献龙 张天真

委员: 别墅 陈德华 陈巧敏 崔金杰 董合忠 杜雄明 范秀丽 房卫平 华金平 简桂良 李保成 李付广 李雪源 李召虎 马平 马峙英 倪万潮 Percy Richard G 宋国立 Yu John Z 袁有禄 Zhang Jinfa 赵新华 周雪平 周治国 祝水金

EDITORIAL BOARD (Technical Editors)

Editorial Consultants:

Lu Liangshu, Lu Ming, Huang Zikang,
Wang Ruohai, Xia Jingyuan, Wang Kunbo

Chairman:

Academician, CAE, Prof. Dr. Yu Shuxun (breeding)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
yu@craas.com.cn

Vice Chairman:

Academician, CAS, Prof. Dr. Zhu Yuxian (plant
physiology and molecular biology)
College of Life Sciences, Wuhan University,
Wuhan 430072, China
zhuyx@whu.edu.cn

Academician, CAE, Prof. Dr. Wu Kongming (plant
protection)
Chinese Academy of Agricultural Sciences,
Beijing 100081, China
wukongming@caas.cn

Prof. Dr. Zhang Xianlong (tissue culture and genetic
transformation)
Huazhong Agricultural University,
Shizishan, Wuchang 430070, China
xlzhang@mail.hzau.edu.cn

Prof. Dr. Zhang Tianzhen (genetics, genome analysis
and molecular breeding)
Cotton Research Institute of Nanjing Agricultural
University, Weigang, Nanjing 210095, China
cotton@njau.edu.cn

Editorial Board Members:

Prof. Dr. Bie Shu (crop production and tillage)
The Industry Crop Institute of Agriculture Science
Academy of Hubei Province, Wuhan 430064, China
bieshu02@163.com

Prof. Dr. Chen Dehua (crop cultivation and physiology)
Yangzhou University,
Yangzhou, Jiangsu 225009, China
cdh@yzu.edu.cn

Prof. Dr. Chen Qiaomin (agriculture engineering)
Nanjing Institute of Agricultural Mechanization
Ministry of Agriculture,
Nanjing 210014, China
nnmcqm@163.com

Prof. Dr. Cui Jinjie (plant protection and biosafety)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
cuijinjie@126.com

Prof. Dr. Dong Hezhong (physiology and agronomy)
Cotton Research Center, Shandong Academy of Agricultural Sciences, Ji'nan 250100, China
donghz@sas.ac.cn

Prof. Dr. Du Xiongming (cotton genetics resources)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
dxml630723@163.com

Prof. Dr. Fan Shuli (crop genetics and breeding)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
fsl427@126.com

Prof. Dr. Fang Weiping (crop genetics and breeding)
Henan Academy of Agricultural Sciences,
Zhengzhou 450002, China
fangweiping0425@126.com

Prof. Dr. Hua Jinping (crop genetics and breeding)
China Agricultural University,
Beijing 100193, China
jinping_hua@cau.edu.cn

Prof. Jian Guiliang (plant pathology)
Institute of Plant Protection, CAAS,
Beijing 100193, China
jianguiliang@126.com

Prof. Li Baocheng (cotton breeding and agronomy)
Xinjiang Academy of Agricultural Reclamation Sciences, Shihezi, Xinjiang 832000, China
xjlbc@163.com

Prof. Dr. Li Fuguang (plant genetic engineering)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
aylifug@163.com

Prof. Li Xueyuan (cotton breeding)
Institute of Industrial Crops, Xinjiang Academy of Agricultural Sciences, Urumqi 830000, China
xjmh2338@163.com

Prof. Dr. Li Zhaohu (crop science)
China Agricultural University,
Beijing 100083, China
lizhaohu@cau.edu.cn

Prof. Dr. Ma Ping (plant protection)
Plant Protection Institute, Hebei Academy of Agricultural and Forestry Sciences,
Baoding, Hebei 071000, China
pingma88@126.com

Prof. Dr. Ma Zhiying (crop genetics and breeding)
Agronomy College, Hebei Agricultural University,
Shijiazhuang, Hebei 050061, China
zhiyingma@126.com

Baoding, Hebei 071001, China
mzhy@hebau.edu.cn

Prof. Ni Wanchao (agri-biotechnology)
Jiangsu Academy of Agricultural Sciences,
Nanjing 210014, China
nwchao2002@aliyun.com

Dr. Percy Richard G (crop genetics)
Crop Germplasm Research, Southern Plains Agricultural Research Center, USDA-ARS,
College Station, TX 77845, USA
richard.percy@ars.usda.gov

Prof. Dr. Song Guoli (cotton genetics)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
songgl@crcaas.com.cn

Dr. Yu John Z (germplasm and genetics)
Crop Germplasm Research, Southern Plains Agricultural Research Center, USDA-ARS,
College Station, TX 77845, USA
john.yu@ars.usda.gov

Prof. Dr. Yuan Youlu (cotton molecular breeding)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
yylcri@126.com

Prof. Dr. Zhang Jinfa (cotton breeding, genetics and genomics)
New Mexico State University,
945 College Drive, Las Cruces, NM 88003, USA
jinzhang@nmsu.edu

Prof. Dr. Zhao Xinhua (crop cultivation and farming system)
Institute of Cotton Research, CAAS,
Anyang, Henan 455000, China
zhaoxinhua1968@126.com

Prof. Dr. Zhou Xueping (plant pathology)
Institute of Plant Protection, CAAS,
Beijing 100193, China
zzhou@zju.edu.cn

Prof. Dr. Zhou Zhiguo (crop physiology, ecology and agriculture information technology)
Nanjing Agricultural University,
Weigang, Nanjing 210095, China
giscott@njau.edu.cn

Prof. Dr. Zhu Shuijin (genetics, breeding and biotechnology)
College of Agri & Biotech, Zhejiang University,
Huajiachi Campus, Hangzhou 310029, China
shjzhu@zju.edu.cn

主管: 中国科协

主办: 中国农学会

承办: 中国农业科学院棉花研究所

协办: 棉花生物学国家重点实验室

农业部棉花遗传改良重点实验室

山东棉花研究中心

新疆农业科学院经济作物研究所

编辑出版: 中国棉花杂志社

地址: 河南省安阳市文峰区黄河大道 38 号

中棉所办公区 (455000)

广告经营许可证: 4105004001001

印刷: 河南省安阳市泰亨印刷有限责任公司

总编: 李付广

Editor-in-chief: Prof. Li Fuguang

责任编辑: 牛巧鱼

电话: (0372) 2525361/362/369 传真: (0372) 2525361

Email: journal@crcaas.com.cn; cottonsci@gmail.com

网址: http://journal.crcaas.com.cn

国内发行: 河南省安阳市邮政局

国内代号: 36-63

国外发行: 中国国际图书贸易总公司 (北京 399 信箱)

国外代号: BM6545

国内定价: ¥120.00/年, 单价: ¥20.00/期

国外定价: US\$80/年, 单价: US\$15/期

期刊基本参数: CN 41-1163/S * 1989 * B * 大 16 * 112 * Zh * P * ¥20.00 * 1000 * 13 * 2015-11

刊号: ISSN 1002-7807/CN 41-1163/S