

西南农业学报

SOUTHWEST CHINA JOURNAL OF AGRICULTURAL SCIENCES

中文核心期刊 | 中国科技核心期刊 | 中国农林核心期刊 | RCCSE中国核心学术期刊 | 中国科学引文数据库 (CSCD) 来源期刊

二〇二一年 第三十四卷 第十期

2021

第34卷 第10期

Vol.34 No.10



ISSN 1001 - 4829

CN 51 - 1213/S
CODEN XNXUEF

《西南农业学报》编辑委员会

2021年10月

目 次

作物遗传育种·种质资源

2063 利用含 5BS·7BS/5BL·7BL 易位的重组自交系创制小麦染色体结构变异新材料····· 杨漫宇,王 琴,唐宗祥,杨恩年

2070 水稻抗白叶枯病基因 *Xa23* 分子标记的开发与应用 ····· 王闵霞,白玉路,张 琼,徐登武,张志勇,王 平

2076 基于生物信息学的睡莲 SSR 位点特征分析 ····· 苏 群,田 敏,刘 俊,王凌云,李春牛,李先民,黄展文,王虹妍

2084 20 个新选玉米自交系产量和穗部性状配合力及其相关性研究
····· 罗黎明,蒋辅燕,高连彰,和永昌,汪燕芬,吴海兰,毕亚琪,尹兴福,何永健,包改丽,姚文华,徐春霞,王 晶,陈洪梅

2093 栽培丹参居群内转录间隔区 (*ITS*) 遗传多样性分析
····· 廖 芳,任瑞花,孙 涛,孔德英,王仲敏,刘静远,印丽萍,李关荣

2100 茶树黄化新品系加工绿茶品质组分分析 ····· 张 翔,刘东娜,龚雪蛟,李兰英,尧 渝,黄 藩,汪 闵,罗 凡

2108 茶树品种“紫娟”及其诱变后代遗传多样性分析 ····· 陈春林,田易萍,邓少春,徐丕忠,仝佳音,尚卫琼

耕作栽培·生理生化

2117 多样性混合间栽模式对水稻光合作用的影响
····· 何 平,杨 楠,尚刚林,张文龙,李德雄,张 锐,苏正亮,李勇成,王云月,韩光煜

2123 不同农作方式对阿克苏地区土壤物理特性的影响 ····· 丛小涵,王卫霞

2130 生物降解穴盘及喷晒对番茄幼苗质量的影响 ····· 周 娟,高登国,刘 星,刘 艳,朱 英,叶 林

2140 6 个品系木奶果光合生理特性分析 ·····
····· 蒋娟娟,罗培四,赵 静,黄丽君,唐景美,李文砚,周 婧,杨志强,郭李怡,韦 优

2145 小黑药茎叶提取液对亚硝化反应的清除和阻断作用 ····· 张鸭关,赵红艳,徐 玲,李梦丽

植物保护·土壤肥料·土地规划

2151 生姜样地根际土壤 AM 真菌群落结构分析 ····· 汪 茜,宋 娟,李冬萍,陈廷速,覃晓娟,车江旅

2158 广西石漠化地区核桃主要病害调查及病原菌鉴定
····· 林珊宇,朱桂宁,贤小勇,韦小妹,黎柳锋,李慈代,韦名壮,韦爱娜,韦 艺,黄明金,韦桥现,廖仁昭

2167 茶树炭疽菌分离鉴定与遗传转化体系建立 ····· 彭成彬,陈美霞,魏日凤,孙 云,张承康,刘 伟

2174 微生物菌肥对水稻土壤细菌群落结构与活性的影响····· 肖 娴,桂一峰,朱 艳,符 菁,朱雪松,朱 显,赵 远

2182 基于高通量测序技术解析三七不同部位内生细菌多样性
····· 李秋桦,夏体渊,任 祺,裴 妍,尹 敏,陈泽斌,唐佐芯,字学庆

2191 化肥减量配施有机肥对田烟根际土壤细菌群落多样性的影响
····· 刘 魁,杨亚丽,杨继周,王正旭,田阳阳,杨博凯,严 杰,吴 昊,赵文军

2197 龙脊梯田典型坡面表层土壤水分的空间变异特征 田 卓,何建华,张帅普,方荣杰,李梓旋,邹传林

2204 小泊湖高寒湿地土壤理化性质对氮沉降的短期响应 徐润宏,朱锦福,刘泽华,谭 梅

2211 分类型下三峡库区耕地资源“三位”时空演变轨迹及特征——以重庆市江津区为例
..... 文可可,张仕超,赵浣玕,熊 熙,刘竞宇

2223 基于高分遥感时序多特征差异的粤北地区水田提取..... 王 卫,朱明帮,陈晓远,胡月明,林昌华

农业生态环境

2231 黔西南石漠化区不同群落土壤碳氮磷垂直分异及化学计量特征..... 余 道,刘子琦,喻阳华,李开萍,蔡路路

2240 喀斯特石漠化地区不同土地利用方式下土壤呼吸的季节动态..... 许 敏,熊康宁,张 俞,程 雯,谭代军

2248 镉对不同品种水稻地下部矿质元素吸收的影响..... 张亚东,刘海学,杨仁杰,高龙飞,武丽娟

2258 区域不同土层土壤容重建模方法比较 方 兵,吴思聪,陈弘扬,宋 强,庄红娟,周鹏飞,杨 斌,张世文

2269 北京西山国家森林公园空气负离子与大气污染物关系研究
..... 李少宁,李 媛,赵 旭,鲁绍伟,赵 娜,徐晓天,徐 兰

2274 *Streptomyces* sp. DJ 菌株产生的角蛋白酶的序列分析 柯 野,杨家臣,屈奇奇,袁小枚,黄镜如

2281 中国主产蔗区气候生态空间分布特征研究..... 张跃彬,樊 仙,毛 均,李如丹,余翔凌

畜牧·兽医·水产

2289 肝片吸虫天冬酰胺内肽酶的分子特征、遗传进化及抗原特性研究
..... 张国武,孟庆玲,乔 军,王熙凤,张 凯,宁程程,季春辉,才学鹏

2295 蛋氨酸水平对兴义矮脚鸡生长性能及养分表观代谢率的影响 蔡惠芬,施晓丽

2301 两种茶提取物对牛蛙心脏和骨骼肌影响的比较及机制研究 沙爱龙,赵雪雯,何璐汐,黄燕婕

Contents

CROP GENETICS & BREEDING · GERMPLASM RESOURCES

2063 Development of New Wheat Materials with Chromosome Structural Variation by Using Recombinant Inbred Line
Containing 5BS·7BS/5BL·7BL Reciprocal Translocation Chromosomes
..... YANG Man-yu, WANG Qin, TANG Zong-xiang, YANG En-nian

2070 Development and Utilization of Bacterial Blight Resistance Gene *Xa23* Molecular Marker
..... WANG Min-xia, BAI Yu-lu, ZHANG Qiong, XU Deng-wu, ZHANG Zhi-yong, WANG Ping

2076 SSR Loci Characteristic Analysis of Water Lily Based on Bio-informatics Methodology
..... SU Qun, TIAN Min, LIU Jun, WANG Ling-yun, LI Chun-niu, LI Xian-min, HUANG Zhan-wen, WANG Hong-yan

2084 Combining Ability of Yield and Ear Characters and Their Correlation About Twenty New Bred Maize Inbred Lines
..... LUO Li-ming, JIANG Fu-yan, GAO Lian-zhang, HE Yong-chang, WANG Yan-fen,
WU Hai-lan, BI Ya-qi, YIN Xing-fu, HE Yong-jian, BAO Gai-li, YAO Wen-hua, XU Chun-xia, WANG Jing, CHEN Hong-mei

2093 Genetic Diversity Analysis of Cultivated Populations of *Salvia miltiorrhiza* in Internal Transcribed Spacers (*ITS*)
..... LIAO Fang, REN Rui-hua, SUN Tao, KONG De-ying, WANG Zhong-min, LIU Jing-yuan, YIN Li-ping, LI Guan-rong

2100 Quality Components of Green Tea Processed from New Tea Yellowing Strains
..... ZHANG Xiang, LIU Dong-na, GONG Xue-jiao, LI Lan-ying, YAO Yu, HUANG Fan, WANG Min, LUO Fan

2108 Genetic Diversity Analysis of Tea Variety ‘Zijuan’ and Its Mutagenesis Progeny
..... CHEN Chun-lin, TIAN Yi-ping, DENG Shao-chun, XU Pi-zhong, TONG Jia-yin, SHANG Wei-qiong

TILLAGE & CULTIVATION · PHYSIOLOGY & BIOCHEMISTRY

2117 Effects of Diversity-Interplanting Models on Rice Photosynthesis
..... HE Ping, YANG Nan, SHANG Gang-lin, ZHANG Wen-long, LI De-xiong, ZHANG Rui,
SU Zheng-liang, LI Yong-cheng, WANG Yun-yue, HAN Guang-yu

2123 Effects of Different Farming Methods on Soil Physical Properties in Aksu Area CONG Xiao-han, WANG Wei-xia

2130 Effects of Biodegradation Plug and Selenium Spraying on Tomato Seedling Quality
..... ZHOU Juan, GAO Deng-guo, LIU Xing, LIU Yan, ZHU Ying, YE Lin

2140 Analysis of Photosynthetic Physiological Characteristics of Six Lines *Baccaurea ramiflora* Lour.
..... JIANG Juan-juan, LUO Pei-si, ZHAO Jing, HUANG Li-jun, TANG Jing-mei, LI Wen-yan,
ZHOU Jing, YANG Zhi-qiang, GUO Li-yi, WEI You

2145 Scavenging and Disconnecting Effects on Nitrosation Reaction by Extracts of Stem and Leaf of *Inula nervosa* Wall.
..... ZHANG Ya-guan, ZHAO Hong-yan, XU Ling, LI Meng-li

PLANT PROTECTION · SOIL FERTILIZER · LAND PLANNING

2151 Arbuscular Mycorrhizal Fungi Community Structure of Ginger Rhizosphere Soils
..... WANG Qian, SONG Juan, LI Dong-ping, CHEN Ting-su, QIN Xiao-juan, CHE Jiang-lyu

2158 Investigation and Pathogen Identification of Main Diseases of Walnut in Karst Areas in Guangxi
..... LIN Shan-yu, ZHU Gui-ning, XIAN Xiao-yong, WEI Xiao-mei, LI Liu-feng, LI Ci-dai, WEI Ming-zhuang, WEI Ai-na,
WEI Yi, HUANG Ming-jin, WEI Qiao-xian, LIAO Ren-zhao

2167 Isolation and Identification of Anthrax from Tea Plant and Establishment of Genetic Transformation System
..... PENG Cheng-bin, CHEN Mei-xia, WEI Ri-feng, SUN Yun, ZHANG Cheng-kang, LIU Wei

2174 Effects of Microbial Inoculations on Structure and Activity of Paddy Soil Bacterial Community
..... XIAO Xian, GUI Yi-feng, ZHU Yan, FU Jing, ZHU Xue-song, ZHU Xian, ZHAO Yuan

2182 Analysis of Endophytic Bacterial Diversity in Different Parts of *Panax notoginseng* Based on High Throughput Sequencing
..... LI Qiu-hua, XIA Ti-yuan, REN Zhen, PEI Yan, YIN Min, CHEN Ze-bin, TANG Zuo-xin, ZI Xue-qing

2191 Effects of Reduced Chemical Fertilizer Combined with Organic Fertilizer on Bacterial Community Diversity of Tobacco Rhizosphere Soil in Field
LIU Kui, YANG Ya-li, YANG Ji-zhou, WANG Zheng-xu, TIAN Yang-yang, YANG Bo-kai, YAN Jie, WU Hao, ZHAO Wen-jun

2197 Spatial Variation Characteristics of Surface Soil Water Content in Typical Slope of Longji Terrace
..... TIAN Zhuo, HE Jian-hua, ZHANG Shuai-pu, FANG Rong-jie, LI Zi-xuan, ZOU Chuan-lin

2204 Short-term Response of Soil Physical and Chemical Properties to Nitrogen Deposition in Xiaopo Lake Alpine Wetland
..... XU Run-hong, ZHU Jin-fu, LIU Ze-hua, TAN Mei

2211 Temporal and Spatial Evolution Tracks and Characteristics of ‘Three Positions’ of Cultivated Land Resources in Three Gorges Reservoir Area Under Different Types: Taking Jiangjin District as an Example
..... WEN Ke-ke, ZHANG Shi-chao, ZHAO Huan-ding, XIONG Xi, LIU Jing-yu

2223 Paddy Field Extraction Based on Time Series Multi Feature Difference of High Resolution Remote Sensing in Northern Guangdong WANG Wei, ZHU Ming-bang, CHEN Xiao-yuan, HU Yue-ming, LIN Chang-hua

AGRICULTURAL ECO-ENVIRONMENT

2231 Vertical Differentiation and Stoichiometry Characteristics of Soil Carbon, Nitrogen and Phosphorus in Different Communities of Southwest Guizhou Desertification Area YU Xiao, LIU Zi-qi, YU Yang-hua, LI Kai-ping, CAI Lu-lu

2240 Seasonal Dynamics of Soil Respiration Under Different Land Use Modes in Karst Rocky Desertification Area
..... XU Min, XIONG Kang-ning, ZHANG Yu, CHENG Wen, TAN Dai-jun

2248 Effects of Cadmium Stress on Uptake and Transport of Mineral Elements in Different Rice Varieties
..... ZHANG Ya-dong, LIU Hai-xue, YANG Ren-jie, GAO Long-fei, WU Li-juan

2258 Comparison of Modeling Methods for Region Soil Bulk Density in Different Soil Layers
FANG Bing, WU Si-cong, CHEN Hong-yang, SONG Qiang, ZHUANG Hong-juan, ZHOU Peng-fei, YANG Bin, ZHANG Shi-wen

2269 Relationship Between Negative Air Ions and Air Pollutant in Beijing Xishan National Forest Park
..... LI Shao-ning, LI Ai, ZHAO Xu, LU Shao-wei, ZHAO Na, XU Xiao-tian, XU Lan

2274 Sequence Analysis of Keratinases Produced by *Streptomyces* sp. DJ Strian
..... KE Ye, YANG Jia-chen, QU Qi-qi, YUAN Xiao-mei, HUANG Jing-ru

2281 Ecological Region Division for China’s Main Sugarcane Producing Area Through Meteorological and Ecological Characters
..... ZHANG Yue-bin, FAN Xian, MAO Jun, LI Ru-dan, YU Xiang-ling

ANIMAL SCIENCE · VETERINARY · FISHERY

2289 Molecular Characterization, Genetic Evolution and Antigenic Characteristics of Legumain of *Fasciola hepatica*
ZHANG Guo-wu, MENG Qing-ling, QIAO Jun, WANG Xi-feng, ZHANG Kai, NING Cheng-cheng, JI Chun-hui, CAI Xue-peng

2295 Effect of Methionine Level on Growth Performance and Nutrient Apparent Metabolizabilities of Xingyi Bantam Chickens
..... CAI Hui-fen, SHI Xiao-li

2301 Comparative Study on Effects of Two Tea Extracts on Heart and Skeletal Muscle of Bullfrog and Its Mechanism
..... SHA Ai-long, ZHAO Xue-wen, HE Lu-xi, HUANG Yan-jie

《西南农业学报》编辑委员会

主 任（Director of the editorial board）：牟锦毅

副主任（Vice directors of the editorial board, 按姓氏笔画排序）：

邓国富 刘剑飞 赵德刚 黄 平

主 编（Editor-in-chief）：牟锦毅

副主编（Associate editors-in-chief, 按姓氏笔画排序）：

王家银 冯 卫 林正雨（常务）

欧 毅 覃泽林

编 委（Members of the editorial board, 按姓氏笔画排序）：

王 云	王文峰	王勇德	王家银	巴桑旺堆	邓国富	冯 卫	朱永清	任光俊	向青云
刘 旭	刘永红	刘作华	刘剑飞	刘海平	江国良	汤永禄	孙 健	牟锦毅	杜 军
杜才富	李成云	杨武云	杨荣仲	何 鹏	何永坤	何庆才	何新华	张 勇	张 鸿
张仲凯	张述宽	陈泽辉	陈晓汉	林正雨	欧 毅	罗廷荣	金 涛	郑家奎	参木友
赵泽英	赵德刚	胡凤益	贺德华	黄 平	梁国鲁	谌爱东	隋启君	蒋开锋	覃泽林
番兴明	曾兴权	曾秀丽	曾卓华	雷 波					

西南农业学报（月刊）

Xinan Nongye Xuebao

2021年10月28日出版

2021年第34卷第10期

Southwest China Journal of

Agricultural Sciences (Monthly)

Vol.34 No.10 2021

Published on October 28, 2021

主 管：四川省农业农村厅

主 办：四川、云南、贵州、广西、西藏及
重庆省（区、市）农科院

编辑出版：《西南农业学报》编辑部

地 址：成都市锦江区净居寺路20号附101号

邮 编：610066

电 话：028-84504192

邮 箱：Jxuebao@sina.com

投稿网址：www.xnnyxb.com

印 刷：成都市锦慧彩印有限公司

国内发行：四川省报刊发行局

国外发行：中国国际图书贸易集团有限公司
（北京399信箱,100044）

ISSN 1001-4829 CN 51-1213/S CODEN XNXUEF

Supervised by Sichuan Provincial Department of Agriculture and Rural Affairs

Sponsored by Sichuan, Yunnan, Guizhou, Guangxi, Tibet and Chongqing Academies of Agricultural Sciences

Edited and Published by Editorial Department of Southwest China Journal of Agricultural Sciences

Add: 20-101, Jingjusi Road, Jinjiang District, Chengdu, Sichuan 610066, China

Tel: 028-84504192

E-mail: Jxuebao@sina.com

Website: www.xnnyxb.com

Printed by Chengdu Jinhui Color Printing Co., Ltd.

Distributed by Sichuan Provincial Bureau of Newspapers and Periodicals

Foreign: China International Book Trading Corporation
（P. O. Box 399, Beijing 100044, China）

国内邮发代号：62-152

国外发行代号：M2912

国内订价：25.00元