



## 目次

### 作物遗传育种·种质资源·分子遗传学

2837-2853 doi: 10.3864/j.issn.0578-1752.2023.15.001  
基于表型性状的高粱育种材料遗传多样性分析及综合评价  
张一中 张晓娟 梁笃 郭琦 范昕琦 聂萌恩 王绘艳 赵文博 杜维俊 柳青山

2854-2862 doi: 10.3864/j.issn.0578-1752.2023.15.002  
我国冬油菜北移的现状、问题与对策  
刘自刚 魏家萍 崔俊美 武泽峰 方彦 董小云 郑国强

### 耕作栽培·生理生化·农业信息技术

2863-2879 doi: 10.3864/j.issn.0578-1752.2023.15.003  
施氮量和种植密度对两冬小麦品种抗倒性能和籽粒产量的影响  
牟海萌 孙丽芳 王壮壮 王宇 宋一凡 张荣 段剑钊 谢迎新 康国章 王永华 郭天财

2880-2894 doi: 10.3864/j.issn.0578-1752.2023.15.004  
授粉期高温胁迫下雄穗大小对玉米干物质积累及产量的影响  
穆心愿 吕姗姗 卢良涛 刘天学 李树岩 薛昌颖 王宏伟 赵霞 夏来坤 唐保军

2895-2906 doi: 10.3864/j.issn.0578-1752.2023.15.005  
中国马铃薯地膜覆盖增产效应及其影响因素的 Meta 分析  
徐菊祯 张梦璐 何文清 隋鹏 陈源泉 崔吉晓

### 植物保护

2907-2918 doi: 10.3864/j.issn.0578-1752.2023.15.006  
湿度调控设施黄瓜棒孢叶斑病菌产孢和释放规律及防治技术  
柴阿丽 杨红敏 王少骅 赵昆 高苇 石延霞 谢学文 李磊 范腾飞 李宝聚

2919-2928 doi: 10.3864/j.issn.0578-1752.2023.15.007  
转录因子 NbERF RAP2-1 在黄瓜绿斑驳花叶病毒侵染中的功能  
于连伟 姜兴林 杨灵玲 王贺 张玉阳 谢莉娜 夏子豪 李洪连 杨雪 施艳

### 土壤肥料·节水灌溉·农业生态环境

2929-2940 doi: 10.3864/j.issn.0578-1752.2023.15.008  
多样化种植对土壤团聚体组成及其有机碳和全氮含量的影响  
孙涛 冯晓敏 高新昊 邓艾兴 郑成岩 宋振伟 张卫建

---

2941-2953 doi: 10.3864/j.issn.0578-1752.2023.15.009  
减量施磷对土壤磷库组成及解磷微生物的影响  
沈开勤 刘倩 杨国涛 陈虹 梁成 赖鹏 李冲 王学春 胡运高

---

2954-2965 doi: 10.3864/j.issn.0578-1752.2023.15.010  
海南典型稻菜轮作区和香蕉园氮磷盈余及土壤硝态氮累积  
赵永鉴 张博飞 张翀 巨晓棠

---

## 园艺

---

2966-2976 doi: 10.3864/j.issn.0578-1752.2023.15.011  
通过遗传转化 *Rfo* 获得青花菜 *Ogura CMS* 恢复系  
邢苗苗 许园园 卢昱宇 严继勇 曾爱松

---

2977-2994 doi: 10.3864/j.issn.0578-1752.2023.15.012  
葡萄 *VvGAI1* 与 *VvJAZ9* 蛋白互作及低温下的表达模式分析  
刘德帅 冯美 孙雨桐 王焯 迟敬楠 姚文孔

---

2995-3005 doi: 10.3864/j.issn.0578-1752.2023.15.013  
山桃杂交群体抗蚜优系的背景选择与标记优劣比较  
刘苏宁 别航灵 王君秀 陈雪嘉 王新卫 王力荣 曹珂

---

3006-3019 doi: 10.3864/j.issn.0578-1752.2023.15.014  
基于多种方法的菠萝果实质地及食味品质综合评价  
付山 梁邺 徐玖亮 阮云泽 罗剑 李婷玉

---

## 畜牧·兽医

---

3020-3031 doi: 10.3864/j.issn.0578-1752.2023.15.015  
免疫沉淀联合 LC-MS/MS 筛选猪肝星状细胞中葡萄糖调节蛋白 *GRP94* 的互作蛋白  
王泉鸿 邢明杰 顾宪红 郝月

---

3032-3039 doi: 10.3864/j.issn.0578-1752.2023.15.016  
基于芯片和填充测序数据的肉鸡屠宰性状基因组选择准确性评估  
尹畅 朱墨 陈艳茹 童世锋 赵桂莘 刘杨

---

3040-3050 doi: 10.3864/j.issn.0578-1752.2023.15.017  
商品疫苗对我国 h9.4.2.5 分支 H9N2 亚型禽流感分离株的免疫保护  
麻琦 和新文 王燕 刘艳晶 潘舒心 侯玉杰 施建忠 邓国华 包红梅 刘景利 郭兴福 毛胜刚 胡井雷 路通 杨帆 田国彬 曾显营 陈化兰

---

## CONTENTS

**CROP GENETICS & BREEDING·GERMPLASM RESOURCES·MOLECULAR GENETICS**

2837-2853 doi: 10.3864/j.issn.0578-1752.2023.15.001

**Genetic Diversity Analysis and Comprehensive Evaluation of Sorghum Breeding Materials Based on Phenotypic Traits**

ZHANG YiZhong, ZHANG XiaoJuan, LIANG Du, GUO Qi, FAN XinQi, NIE MengEn, WANG HuiYan, ZHAO WenBo, DU WeiJun, LIU QingShan

2854-2862 doi: 10.3864/j.issn.0578-1752.2023.15.002

**Status, Existing Problems and Strategy Discussion on Northward Expansion of Winter Rapeseed in China**

LIU ZiGang, WEI JiaPing, CUI JunMei, WU ZeFeng, FANG Yan, DONG XiaoYun, ZHENG GuoQiang

**TILLAGE & CULTIVATION·PHYSIOLOGY & BIOCHEMISTRY·AGRICULTURE INFORMATION TECHNOLOGY**

2863-2879 doi: 10.3864/j.issn.0578-1752.2023.15.003

**Effect of Nitrogen Application Rate and Planting Density on the Lodging Resistance and Grain Yield of Two Winter Wheat Varieties**

MU HaiMeng, SUN LiFang, WANG ZhuangZhuang, WANG Yu, SONG YiFan, ZHANG Rong, DUAN JianZhao, XIE YingXin, KANG GuoZhang, WANG YongHua, GUO TianCai

2880-2894 doi: 10.3864/j.issn.0578-1752.2023.15.004

**Effects of Tassel Sizes on Post-Flowering Dry Matter Accumulation and Yield of Different Maize Varieties Under High Temperature Stress During Pollination**

MU XinYuan, LÜ ShanShan, LU LiangTao, LIU TianXue, LI ShuYan, XUE ChangYing, WANG HongWei, ZHAO Xia, XIA LaiKun, TANG BaoJun

2895-2906 doi: 10.3864/j.issn.0578-1752.2023.15.005

**Yield-Increasing Effects Under Plastic Film Mulching of Potato in China Based on Meta-Analysis**

XU JuZhen, ZHANG MengLu, HE WenQing, SUI Peng, CHEN YuanQuan, CUI JiXiao

**PLANT PROTECTION**

2907-2918 doi: 10.3864/j.issn.0578-1752.2023.15.006

**Effect of Humidity on Sporulation and Release of *Corynespora cassiicola* and Control Technology**

CHAI ALi, YANG HongMin, WANG ShaoHua, ZHAO Kun, GAO Wei, SHI YanXia, XIE XueWen, LI Lei, FAN TengFei, LI BaoJu

2919-2928 doi: 10.3864/j.issn.0578-1752.2023.15.007

**Function of Transcription Factor NbERF RAP2-1 in Cucumber Green Mottle Mosaic Virus Infection**

YU LianWei, JIANG XingLin, YANG LingLing, WANG He, ZHANG YuYang, XIE LiNa, XIA ZiHao, LI HongLian, YANG Xue, SHI Yan

**SOIL & FERTILIZER·WATER-SAVING IRRIGATION·AGROECOLOGY & ENVIRONMENT**

2929-2940 doi: 10.3864/j.issn.0578-1752.2023.15.008

**Effects of Diversified Cropping on the Soil Aggregate Composition and Organic Carbon and Total Nitrogen Content**

SUN Tao, FENG XiaoMin, GAO XinHao, DENG AiXing, ZHENG ChengYan, SONG ZhenWei, ZHANG WeiJian

2941-2953

doi: 10.3864/j.issn.0578-1752.2023.15.009

**Effects of Phosphorus Reduction on Soil Phosphorus Pool Composition and Phosphorus Solubilizing Microorganisms**

SHEN KaiQin, LIU Qian, YANG GuoTao, CHEN Hong, LIANG Cheng, LAI Peng, LI Chong, WANG XueChun, HU YunGao

2954-2965

doi: 10.3864/j.issn.0578-1752.2023.15.010

**Nitrogen and Phosphorus Surplus and Soil Nitrate Nitrogen Accumulation in Typical Rice-Vegetable Rotation and Banana Garden in Hainan**

ZHAO YongJian, ZHANG BoFei, ZHANG Chong, JU XiaoTang

**HORTICULTURE**

2966-2976

doi: 10.3864/j.issn.0578-1752.2023.15.011

**Development of Ogura CMS Restorers of Broccoli via Genetic Transformation of *Rfo***

XING MiaoMiao, XU YuanYuan, LU YuYu, YAN JiYong, ZENG AiSong

2977-2994

doi: 10.3864/j.issn.0578-1752.2023.15.012

**Analysis of the Interaction Between VvGAI1 and VvJAZ9 Proteins in Grape and Its Expression Pattern Under Low Temperature**

LIU DeShuai, FENG Mei, SUN YuTong, WANG Ye, CHI JingNan, YAO WenKong

2995-3005

doi: 10.3864/j.issn.0578-1752.2023.15.013

**Background Selection and Comparison of Marker Superiority and Inferiority of Aphid-Resistant Seedlings in an Interspecific Cross Peach Population**

LIU SuNing, BIE HangLing, WANG JunXiu, CHEN XueJia, WANG XinWei, WANG LiRong, CAO Ke

3006-3019

doi: 10.3864/j.issn.0578-1752.2023.15.014

**Comprehensive Evaluation of Fruit Texture and Taste Quality of Pineapple Based on Multiple Methods**

FU Shan, LIANG Ye, XU JiuLiang, RUAN YunZe, LUO Jian, LI TingYu

**ANIMAL SCIENCE·VETERINARY SCIENCE**

3020-3031

doi: 10.3864/j.issn.0578-1752.2023.15.015

**Screening of Anti-Apoptotic Protein GRP94 Interaction Proteins in Porcine Hepatic Stellate Cells by Immunoprecipitation Combined with LC-MS/MS**

WANG XiaoHong, XING MingJie, GU XianHong, HAO Yue

3032-3039

doi: 10.3864/j.issn.0578-1752.2023.15.016

**Assessment of Genomic Selection Accuracy for Slaughter Traits in Broilers Based on Microarray and Imputed Sequencing Data**

YIN Chang, ZHU Mo, CHEN YanRu, TONG ShiFeng, ZHAO GuiPing, LIU Yang

3040-3050

doi: 10.3864/j.issn.0578-1752.2023.15.017

**The Protective Efficacy of Commercial Vaccines Against H9N2 Avian Influenza Virus of Branch h9.4.2.5 Isolated in China**

MA Qi, HE XinWen, WANG Yan, LIU YanJing, PAN ShuXin, HOU YuJie, SHI JianZhong, DENG GuoHua, BAO HongMei, LIU JingLi, GUO XingFu, MAO ShengGang, HU JingLei, LU Tong, YANG Fan, TIAN GuoBin, ZENG XianYing, CHEN HuaLan