



ISSN 0578-1752
CODEN CKNYAR

中国农业科学

SCIENTIA AGRICULTURA SINICA

第 54 卷 第 3 期

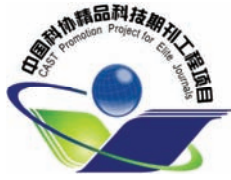
Vol. 54 No. 3

2021



中国农业科学院
中国农学会

主办



目次

专题：主要杂粮作物产业与种业现状及发展方向

459-470 doi: 10.3864/j.issn.0578-1752.2021.03.001

中国谷子产业和种业发展现状与未来展望

李顺国 刘斐 刘猛 程汝宏 夏恩君 刁现民

471-482 doi: 10.3864/j.issn.0578-1752.2021.03.002

中国高粱产业和种业发展现状与未来展望

李顺国 刘猛 刘斐 邹剑秋 陆晓春 刁现民

483-492 doi: 10.3864/j.issn.0578-1752.2021.03.003

中国甘薯产业和种业发展现状与未来展望

王欣 李强 曹清河 马代夫

493-503 doi: 10.3864/j.issn.0578-1752.2021.03.004

中国食用豆产业和种业发展现状与未来展望

陈红霖 田静 朱振东 张耀文 陈巧敏 周素梅 王丽侠 刘玉皎 何玉华 尹凤祥 魏淑红 程须珍

耕作栽培·生理生化·农业信息技术

504-521 doi: 10.3864/j.issn.0578-1752.2021.03.005

小麦生长模型对拔节期和孕穗期低温胁迫响应能力的比较

肖润骏 刘蕾蕾 邱小雷 汤亮 曹卫星 朱艳 刘兵

522-532 doi: 10.3864/j.issn.0578-1752.2021.03.006

粉垄对甘蔗根系结构发育及呼吸代谢相关酶活性的影响

李浩 韦本辉 黄金玲 李志刚 王令强 梁晓莹 李素丽

专题：马铃薯块茎蛾绿色防控

533-535 doi: 10.3864/j.issn.0578-1752.2021.03.007

导读：马铃薯块茎蛾绿色防控技术

高玉林

536-546 doi: 10.3864/j.issn.0578-1752.2021.03.008

马铃薯块茎蛾对不同品种马铃薯块茎的适应性分析

张梦迪 闫俊杰 高玉林

547-555 doi: 10.3864/j.issn.0578-1752.2021.03.009

不同性别和交配状态的马铃薯块茎蛾对马铃薯挥发物的触角电位反应

李祥 张小娇 肖春 董文霞

556-572 doi: 10.3864/j.issn.0578-1752.2021.03.010
马铃薯块茎蛾性信息素化学合成研究现状
陈洋 赵红怡 闫俊杰 黄剑 高玉林

573-582 doi: 10.3864/j.issn.0578-1752.2021.03.011
化学与物理刺激对马铃薯块茎蛾产卵行为的影响
熊焰 韩瑞 胡纯华 王静 肖春

土壤肥料·节水灌溉·农业生态环境

583-595 doi: 10.3864/j.issn.0578-1752.2021.03.012
大田群体冬小麦氮收获指数变异特征研究
高志源 许吉利 刘硕 田汇 王朝辉

596-607 doi: 10.3864/j.issn.0578-1752.2021.03.013
免耕覆盖下土壤水分、团聚体稳定性及其有机碳分布对小麦产量的协同效应
郑凤君 王雪 李生平 刘晓彤 刘志平 卢晋晶 武雪萍 席吉龙 张建诚 李永山

608-618 doi: 10.3864/j.issn.0578-1752.2021.03.014
不同覆盖时期和覆盖方式对旱地冬小麦经济和环境效应的影响
毛安然 赵护兵 杨慧敏 王涛 陈秀文 梁文娟

园艺

619-628 doi: 10.3864/j.issn.0578-1752.2021.03.015
CmWRKY15-1 通过水杨酸信号通路调控菊花白色锈病抗性
毕蒙蒙 刘迪 高歌 祝朋芳 毛洪玉

629-642 doi: 10.3864/j.issn.0578-1752.2021.03.016
砧穗互作对菊花嫁接苗耐盐性的影响
孟蕊 刘晔 赵爽 房伟民 蒋甲福 陈素梅 陈发棣 管志勇

食品科学与工程

643-652 doi: 10.3864/j.issn.0578-1752.2021.03.017
低温长时蒸煮对猪肉品质的影响
王静帆 黄峰 沈青山 温彦涛 郭志刚 景晓亮 张春晖

畜牧·兽医·资源昆虫

653-661 doi: 10.3864/j.issn.0578-1752.2021.03.018
Pt-Pd 合金纳米颗粒标记口蹄疫 A 型病毒抗体检测的免疫层析方法
孙燕燕 李昕 林密 李峰松 包艳芳 陈夏辉 杨光 曾巧英 蒋韬

662-674 doi: 10.3864/j.issn.0578-1752.2021.03.019
BLV-miRNA 跨界调控人类靶基因预测及生物信息学分析
王雍 李思妍 何思锐 张迪 连帅 王建发 武瑞

CONTENTS

SPECIAL FOCUS: CURRENT STATUS AND FUTURE PROSPECTIVE OF MINOR CEREALS, SWEETPOTATO AND FOOD LEGUMS PRODUCTION AND SEED INDUSTRY IN CHINA

459-470 doi: 10.3864/j.issn.0578-1752.2021.03.001

Current Status and Future Prospective of Foxtail Millet Production and Seed Industry in China

LI ShunGuo, LIU Fei, LIU Meng, CHENG RuHong, XIA EnJun, DIAO XianMin

471-482 doi: 10.3864/j.issn.0578-1752.2021.03.002

Current Status and Future Prospective of Sorghum Production and Seed Industry in China

LI ShunGuo, LIU Meng, LIU Fei, ZOU JianQiu, LU XiaoChun, DIAO XianMin

483-492 doi: 10.3864/j.issn.0578-1752.2021.03.003

Current Status and Future Prospective of Sweetpotato Production and Seed Industry in China

WANG Xin, LI Qiang, CAO QingHe, MA DaiFu

493-503 doi: 10.3864/j.issn.0578-1752.2021.03.004

Current Status and Future Prospective of Food Legumes Production and Seed Industry in China

CHEN HongLin, TIAN Jing, ZHU ZhenDong, ZHANG YaoWen, CHEN QiaoMin, ZHOU SuMei, WANG LiXia, LIU YuJiao, HE YuHua, YIN FengXiang, WEI ShuHong, CHENG XuZhen

TILLAGE & CULTIVATION·PHYSIOLOGY & BIOCHEMISTRY·AGRICULTURE INFORMATION TECHNOLOGY

504-521 doi: 10.3864/j.issn.0578-1752.2021.03.005

Testing the Responses of Low Temperature Stress Routine to Low Temperature Stress at Jointing and Booting in Wheat

XIAO LiuJun, LIU LeiLei, QIU XiaoLei, TANG Liang, CAO WeiXing, ZHU Yan, LIU Bing

522-532 doi: 10.3864/j.issn.0578-1752.2021.03.006

Effects of Fenlong Cultivation on Root Cell Structure and Enzyme of Respiratory Metabolic of Sugarcane

LI Hao, WEI BenHui, HUANG JinLing, LI ZhiGang, WANG LingQiang, LIANG XiaoYing, LI SuLi

SPECIAL FOCUS: GREEN CONTROL FOR POTATO TUBERWORM (*PHTHORIMAEA OPERCULELLA*)

533-535 doi: 10.3864/j.issn.0578-1752.2021.03.007

Guidance: Green Control Techniques for Potato Tuberworm (*Phthorimaea operculella*)

GAO YuLin

536-546 doi: 10.3864/j.issn.0578-1752.2021.03.008

The Adaptive Analysis of *Phthorimaea operculella* to Different Potato Tuber Varieties

ZHANG MengDi, YAN JunJie, GAO YuLin

547-555 doi: 10.3864/j.issn.0578-1752.2021.03.009

Electroantennogram Responses of *Phthorimaea operculella* of Different Sexes and Mating States to Potato Volatiles

LI Xiang, ZHANG XiaoJiao, XIAO Chun, DONG WenXia

556-572

doi: 10.3864/j.issn.0578-1752.2021.03.010

Chemical Synthesis View on Sex Pheromones of Potato Tuberworm (*Phthorimaea operculella*)

CHEN Yang, ZHAO HongYi, YAN JunJie, HUANG Jian, GAO YuLin

573-582

doi: 10.3864/j.issn.0578-1752.2021.03.011

Influences of Chemical and Physical Stimuli on Oviposition Behavior of *Phthorimaea operculella*

XIONG Yan, HAN Rui, HU ChunHua, WANG Jing, XIAO Chun

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

583-595

doi: 10.3864/j.issn.0578-1752.2021.03.012

Variations of Winter Wheat Nitrogen Harvest Index in Field Wheat Population

GAO ZhiYuan, XU JiLi, LIU Shuo, TIAN Hui, WANG ZhaoHui

596-607

doi: 10.3864/j.issn.0578-1752.2021.03.013

Synergistic Effects of Soil Moisture, Aggregate Stability and Organic Carbon Distribution on Wheat Yield Under No-Tillage Practice

ZHENG FengJun, WANG Xue, LI ShengPing, LIU XiaoTong, LIU ZhiPing, LU JinJing, WU XuePing, XI JiLong, ZHANG JianCheng, LI YongShan

608-618

doi: 10.3864/j.issn.0578-1752.2021.03.014

Effects of Different Mulching Periods and Mulching Practices on Economic Return and Environment

MAO AnRan, ZHAO HuBing, YANG HuiMin, WANG Tao, CHEN XiuWen, LIANG WenJuan

HORTICULTURE

619-628

doi: 10.3864/j.issn.0578-1752.2021.03.015

***CmWRKY15-1* Regulates Resistance of Chrysanthemum White Rust Through Salicylic Acid Signaling Pathway**

BI MengMeng, LIU Di, GAO Ge, ZHU PengFang, MAO HongYu

629-642

doi: 10.3864/j.issn.0578-1752.2021.03.016

Effects of Rootstock and Scion Interaction on Salt Tolerance of Grafted Chrysanthemum Seedlings

MENG Rui, LIU Ye, ZHAO Shuang, FANG WeiMin, JIANG JiaFu, CHEN SuMei, CHEN FaDi, GUAN ZhiYong

FOOD SCIENCE AND ENGINEERING

643-652

doi: 10.3864/j.issn.0578-1752.2021.03.017

The Influence of Low-Temperature and Long-Time Cooking on the Quality of Pork Products

WANG JingFan, HUANG Feng, SHEN QingShan, WEN YanTao, GUO ZhiGang, JING XiaoLiang, ZHANG ChunHui

ANIMAL SCIENCE·VETERINARY SCIENCE·RESOURCE INSECT

653-661

doi: 10.3864/j.issn.0578-1752.2021.03.018

Establishment of a Novel Immunochromatographic Assay Based on Foot-and-Mouth Disease Virus Serotype A Labeled by Pt-Pd Bimetal Nanoparticles

SUN YanYan, LI Xin, LIN Mi, LI FengSong, BAO YanFang, CHEN XiaHui, YANG Guang, ZENG QiaoYing, JIANG Tao

662-674

doi: 10.3864/j.issn.0578-1752.2021.03.019

Prediction and Bioinformatics Analysis of BLV-miRNA Transboundary Regulation of Human Target Genes

WANG Yong, LI SiYan, HE SiRui, ZHANG Di, LIAN Shuai, WANG JianFa, WU Rui