

目 次

玉米研究前沿

灌浆阶段干旱对玉米强、弱势位胚乳干物质积累的影响	陈先敏 周亚宁 李斌彬 肖祖栋 申思 周顺利(1)
玉米机械粒收品种籽粒灌浆特性及对种植密度和施氮量的响应	赵雪 胡晗 李芳 林珊 陈先敏 吴巩 李斌彬 周顺利(12)
132 份爆裂玉米自交系的相关性状鉴定及杂种优势类群划分	王雪飞 李婷婷 郑云霄 李召辉 贾晓艳 赵永锋 祝丽英 宋伟彬 郭晋杰(25)
错株密植对夏玉米冠层特性和产量的影响	张美微 李川 张盼盼 牛军 郭涵潇 何佳雯 刘京宝 乔江方(34)
1970s—2010s 玉米品种产量及籽粒营养品质的分析	王利青 高聚林 王富贵 马达灵 于晓芳 郭怀怀(44)
新型硫酸铵肥料对土壤团聚体碳、氮含量及玉米产量的影响	董馨宇 闫双堆 闫秋艳 郭探文 张延慧(61)
转录因子 TaMADS2 在小麦-叶锈菌互作中的功能研究	王率伍 秦昭 赵世佳 刘子豪 路亚南 马保站 肖继斌 程琨 郑文明 刘娜(72)
我国辣椒产业发展现状及育种应对措施	林巧 辛竹琳 孔令博 王晓梅 杨小薇 何微(82)
矿物调理剂对酸性土壤酸度降低和菠菜镉累积的影响	范贝贝 彭宇涛 潘成杰 张邦喜 丁帅 刘艳丽 慕康国 陈清(96)
铜(II)-多酚纳米复合物对水培营养液中藻类生长的抑制	王明耀 杨晓 黄涛 王晓玲 杨其长 郭俊凌(106)
盐补骨脂对人 HK-2、人 Hep-G2 及猪 LLC-PK1 的细胞毒性比较分析	王庆涛 高琛 刘畅 赵红琼 郝智慧(120)

外源褪黑素诱导下 Hippo 信号通路调控山羊绒生长 mRNA 和 lncRNA 的

生物信息学分析..... 贾纯琰 付绍印 丽春 张文广(128)

原花色素对鸡胸肉肌原纤维蛋白凝胶特性影响

..... 郑卓琦 李岩 李松艳 冯冠霖 李静媛(140)

河流网箱养殖与池塘养殖鲤鱼营养及品质评价

..... 梁释介 丁宁 冯淳淞 闫有利 罗永康(154)

黄淮海平原地下水超采区休耕政策过程绩效评价及改进策略研究

..... 曹颖 雷鸣 孔祥斌 程静怡 刘鑫 党昱譞 姚东恒 廖宇波(163)

洪涝风险胁迫下登封市蓝绿基础设施网络构建研究

..... 朱莹莹 陈耀 马玉红 徐恩凯 张淑梅 张艺鸽 田国行(175)

西藏色季拉山(阳坡)不同海拔土壤动物群落多样性时空分布特征

..... 臧建成 宋美成 黄智 张盼盼(189)

生物质热解液化技术的生命周期评价

..... 沈峥 宋远博 高玉磊 姜继康 顾敏燕 司慧萍(200)

摆动分离筛加速度特性分析及性能试验..... 谢胜仕 李鹏 郭亚萍 邓伟刚 王春光(207)

基于几何非线性圆拱动力模型的拱形温室自振周期分析

..... 张焱辉 李百丰 邓婷 韩盛柏 蒋秀根(220)

农产品标识认知、消费习惯对绿色农产品溢价支付意愿的影响

——以绿色鲜食马铃薯为例..... 伦闰琪 罗其友 高明杰 刘洋(229)

扶贫项目资产管理对家庭脱贫增收效果的影响..... 李书奎 任金政 赵鑫(240)

农户采用直播对水稻生产效率的影响..... 石敏 陈风波 翁凌云 曾华盛(256)

小农户衔接现代农业有助于提升其正规信贷可获得性吗?

——基于 2019 年欠发达地区农村普惠金融调查数据 陈晓洁 何广文(270)

CONTENTS

Frontiers of Maize Science

- Impacts of drought occurred in grain-filling phases on dry matter accumulation of endosperms of superior and inferior maize kernel
..... CHEN Xianmin, ZHOU Yaning, LI Binbin, XIAO Zudong, SHEN Si, ZHOU Shunli (1)
- Grain filling characteristics of mechanical grain harvest maize variety and its response to plant density and nitrogen fertilizer rate ZHAO Xue, HU Han, LI Fang, LIN Shan, CHEN Xianmin, WU Gong, LI Binbin, ZHOU Shunli (12)
- Identification of related traits and classification of heterotic groups for 132 popcorn inbred lines
..... WANG Xuefei, LI Tingting, ZHENG Yunxiao, LI Zhaohui, JIA Xiaoyan, ZHAO Yongfeng, ZHU Liying, SONG Weibin, GUO Jinjie (25)
- Effects of staggered and close planting on canopy characteristic and yield of summer maize
..... ZHANG Meirwei, LI Chuan, ZHANG Panpan, NIU Jun, GUO Hanxiao, HE Jiawen, LIU Jingbao, QIAO Jiangfang (34)
- Analysis of yield and grain nutrient quality of maize varieties from 1970s to 2010s
..... WANG Liqing, GAO Julin, WANG Fugui, MA Daling, YU Xiaofang, GUO Huaihuai (44)
- Effects of new ammonium sulfate fertilizer on carbon and nitrogen content of soil aggregates and corn yield DONG Xinyu, YAN Shuangdui, YAN Qiuyan, GUO Tanwen, ZHANG Yanhui (61)
- Study on the function of transcription factor TaMADS2 in the interaction between wheat and *Puccinia triticina*
..... WANG Shuaiwu, QIN Zhao, ZHAO Shijia, LIU Zihao, LU Yanan, MA Baozhan, XIAO Jibin, CHENG Kun, ZHENG Wenming, LIU Na (72)
- Current situation of pepper industry development and breeding countermeasures in China
..... LIN Qiao, XIN Zhulin, KONG Lingbo, WANG Xiaomei, YANG Xiaowei, HE Wei (82)
- Effects of mineral amendments on acidic soil acidity reduction and spinach cadmium accumulation
..... FAN Beibei, PENG Yutao, PAN Chengjie, ZHANG Bangxi, DING Shuai, LIU Yanli, MU Kangguo, CHEN Qing (96)
- Inhibition effects of copper(II)-phenolic nanocomplexes on the growth of algae in hydroponic nutrient solution WANG Mingyao, YANG Xiao, HUANG Tao, WANG Xiaoling, YANG Qichang, GUO Junling (106)
- Comparative analysis on the cytotoxicity of salt *Psoraleae Fructus* on human HK-2, human Hep-G2 and porcine LLC-PK1
..... WANG Qingtao, GAO Chen, LIU Chang, ZHAO Hongqiong, HAO Zhihui (120)
- Bioinformatics analysis of mRNA and lncRNA induced by exogenous melatonin that regulated cashmere growth by Hippo signaling pathway
..... JIA Chunyan, FU Shaoyin, LI Chun, ZHANG Wenguang (128)

- Effect of proanthocyanidins on gel properties of chicken breast myofibrillar protein
 *ZHENG Zhuoqi, LI Yan, LI Songyan, FENG Guanlin, LI Jingyuan*(140)
- Nutrition and quality evaluation of carps cultured in river-cages and ponds
 *LIANG Shijie, DING Ning, FENG Chunsong, YAN Youli, LUO Yongkang*(154)
- Study on performance evaluation and improvement strategy of fallow policy process in
 groundwater overexploitation area of Huang-Huai-Hai Plain
 *CAO Ying, LEI Ming, KONG Xiangbin, CHENG Jingyi,*
LIU Xin, DANG Yuxuan, YAO Dongheng, LIAO Yubo(163)
- Construction of blue-green infrastructure network in Dengfeng City under flooding risk stress
 *ZHU Yingying, CHEN Yao, MA Yuhong, XU Enkai,*
ZHANG Shumei, ZHANG Yige, TIAN Guohang(175)
- Spatial and temporal distribution of soil animal community diversity at
 different altitudes in Sejila Mountain (sunny slope), Tibet
 *ZANG Jiancheng, SONG Meicheng, HUANG Zhi, ZHANG Panpan*(189)
- Life cycle assessment of a biomass pyrolysis and liquefaction technology
 *SHEN Zheng, SONG Yuanbo, GAO Yulei, JIANG Jikang, GU Minyan, SI Hui ping*(200)
- Acceleration characteristic analysis and performance experiment of a swing separation sieve
 *XIE Shengshi, LI Peng, GUO Yaping, DENG Weigang, WANG Chunguang*(207)
- Analysis of natural vibration period of arch greenhouse based on a geometric
 nonlinear dynamic model of circular arch
 *ZHANG Yanhui, LI Baifeng, DENG Ting, HAN Shengbai, JIANG Xiugen*(220)
- Effects of agricultural product labeling cognition and consumption habit on consumers'
 willingness to pay premium of green agricultural products:
 Taking green fresh-potato as an example
 *LUN Runqi, LUO Qiyou, GAO Mingjie, LIU Yang*(229)
- Research on the income increasing effect of poverty alleviation projects
 asset management on poverty-stricken families
 *LI Shukui, REN Jinzheng, ZHAO Xin*(240)
- Effects of farmers' direct seeding technology on rice production efficiency
 *SHI Min, CHEN Fengbo, WENG Lingyun, ZENG Huasheng*(256)
- Will connecting to modern agriculture help improve smallholders' formal credit availability?
 Evidence from the rural inclusive finance survey in 2019
 *CHEN Xiaojie, HE Guangwen*(270)