



ISSN 1002-2481

CN 14-1113/S
CODEN SNKHCO

山西農業科學

JOURNAL OF SHANXI AGRICULTURAL SCIENCES
SHANXI NONGYE KEXUE

- 中国科技核心期刊
- RCCSE中国核心学术期刊
- 中国农林核心期刊
- 中国学术期刊综合评价数据库 (CAJCED) 统计源期刊
- 中国期刊全文数据库 (CJFD) 全文收录
- 中国核心期刊 (遴选) 数据库全文上网
- 中文科技期刊数据库全文收录
- 超星期刊域出版平台全文收录

3 2022

第50卷 第3期 (总第433期)
Vol.50 No.3

ISSN 1002-2481



山西省农业科学院 主办

目次

生物技术

- 谷子 CHs 家族全基因组鉴定及表达分析 孙卓楠, 付振鑫, 孙玉荣, 刘旭, 张宝俊 (281)
- 谷子 CAD 基因家族的鉴定及分析 任晓庆, 王波, 欧阳春平, 丁鑫炎, 樊洁晶, 高建华 (289)
- 大豆转录因子 GmWIN1-1 的鉴定与表达分析 蔡桂萍, 黄旭升, 史先飞, 李润植, 张莉 (296)
- 干旱胁迫下偏苜蓿保护酶及转录组差异性分析 卫凯, 朱慧森, 岑慧芳, 程映杰 (303)
- Mimics 转染 PC12 细胞条件的优化 任静, 郝琴琴, 成俊丽, 李鹏飞 (314)
- 雨生红球藻磷脂-二酰甘油酰基转移酶基因的鉴定与表达分析 赵春超, 张宏江, 臧敦秀, 崔红利, 李润植 (319)

遗传育种

- 苗期冷冻法快速鉴定小偃麦衍生系的抗寒性
..... 郭慧娟, 常利芳, 乔麟轶, 李欣, 张树伟, 陈芳, 贾举庆, 畅志坚, 张晓军 (327)

生理生化

- 解淀粉芽孢杆菌 QST713 对低钙胁迫下黄瓜幼苗生长及光合作用的影响 张莉, 韩玲娟, 张毅, 侯雷平, 李斌 (336)
- 3 种花香调节剂对矮牵牛花香性状的影响 张雅静, 郝瑞杰, 杨妹婷, 张忠强, 常珺, 邱晨 (346)
- 重庆潼南三叶青与安徽黄山三叶青光合特性和叶绿素荧光参数比较 彭保江, 尹明华, 蔡红, 陈荣华 (356)

耕作与栽培

- 行株距对夏大豆干物质积累、光合特性及产量的影响 李长红 (364)
- 浅埋滴灌深度和种植密度对蓖麻产量的影响
..... 齐金全, 李晓娜, 朱雪倩, 乔文杰, 韩雯毓, 贾娟霞, 韩新奇, 孙晓梅, 陈德飞, 刘杨, 何智彪 (371)

资源与环境

- 羊肚菌不同菌基对土壤理化性质和微生物多样性的影响 宋威, 王翔, 马玉敏, 张玉萍, 王芳 (378)
- 添加脱硫石膏对苏打盐碱土壤理化性质及水稻产量的影响 周宾 (386)
- 微藻生物肥对稻苗生长的影响 兰彪, 贾佳欢, 孙广仁 (391)

植物保护

- 不同种衣剂对小麦生长及病虫害防治效果的影响 王睿, 高炜, 王克功 (398)
- 山西省玉米品种抗矮花叶病鉴定及蚜虫传播分析 杨帆, 谢成升, 张作刚 (409)
- 5 种中草药浸提物对果树腐烂病的防治效果 付宝春, 田永强 (419)

贮藏与加工

- 响应面法优化大白桩菇液体发酵工艺 王志伟, 郭尚, 侯雷平, 李艳婷 (424)

综述

- 性别控制技术在家畜生产中的应用研究进展 谢晓刚, 李丹, 薛增迪, 张芮琪, 史宏昭, 薛嘉, 马乃祥, 权富生 (433)
- 抗球虫药氢溴酸常山酮研究进展 冯俊吾, 温芳, 张松, 赵晶晶, 李宏全 (439)

CONTENTS

Biotechnology

- Genome-wide identification and expression analysis of CHs family in Millet
..... SUN Zhuonan, FU Zhenxin, SUN Yurong, LIU Xu, ZHANG Baojun(281)
- Identification and Analysis of *CAD* Gene Family in Foxtail Millet
..... REN Xiaoqing, WANG Bo, OUYANG Chunping, DING Xinyan, FAN Jiejing, GAO Jianhua(289)
- Identification and Expression Analysis of Soybean Transcription Factor GmWIN1-1
..... CAI Guiping, HUANG Xusheng, SHI Xianfei, LI Runzhi, ZHANG Li(296)
- Protective Enzyme and Transcriptome Difference Analysis of *Medicago sativa* 'Pianguan' in Response to Drought Stress
..... WEI Kai, ZHU Huisen, CEN Huifang, CHENG Yingjie(303)
- Optimization of Mimics Transfection Conditions in PC12 Cells..... REN Jing, HAO Qinqin, CHENG Junli, LI Pengfei(314)
- Identification and Expression Analysis of Phospholipid-Diacylglycerol Acyltransferase Gene(*HpPDAT*) from *Haematococcus pluvialis*
..... ZHAO Chunchao, ZHANG Hongjiang, ZANG Dunxiu, CUI Hongli, LI Runzhi(319)

Genetics and breeding

- Rapid Identification of Cold Resistance of Thinopyrum-derived Wheat Lines by Freezing at Seedling Stage..... GUO Huijuan,
CHANG Lifang, QIAO Linyi, LI Xin, ZHANG Shuwei, CHEN Fang, JIA Juqing, CHANG Zhijian, ZHANG Xiaojun(327)

Physiology and biochemistry

- Effects of *Bacillus amyloliquefaciens* QST713 on Growth and Photosynthesis of Cucumber Seedlings under Low Calcium Stress
..... ZHANG Li, HAN Lingjuan, ZHANG Yi, HOU Leiping, LI Bin(336)
- Effects of Three Frarance Regulators on Aromatic Traits of *Petunia hybrida* Flower
..... ZHANG Yajing, HAO Ruijie, YANG Shuting, ZHANG Zhongqiang, CHANG Jun, QIU Chen(346)
- Comparison of Photosynthetic Characteristics and Chlorophyll Fluorescence Parameters of Chongqing Tongnan *Tetrastigma hemsleyanum* and Anhui Huangshan *Tetrastigma hemsleyanum*..... PENG Baojiang, YIN Minghua, CAI Hong, CHEN Ronghua(356)

Cultivation

- Effects of Row and Plant Spacing on Dry Matter Accumulation, Photosynthetic Characteristics and Yield of Summer Soybean
..... LI Changhong(364)
- Effects of Shallow Drip Irrigation Depth and Planting Density on Castor Yield..... QI Jinquan, LI Xiaona, ZHU Xueqian,
QIAO Wenjie, HAN Wengyu, JIA Juanxia, HAN Xinqi, SUN Xiaomei, CHEN Defei, LIU Yang, HE Zhibiao(371)

Resources and environment

- Effect of Different Bacterial Bases of *Morchella esculenta* on Soil Physicochemical Properties and Microbial Diversity
..... SONG Wei, WANG Xiang, MA Yumin, ZHANG Yuping, WANG Fang(378)
- Effects of Desulfurization Gypsum on Physical and Chemical Properties and Rice Yield in Soda Alkali-saline Soil..... ZHOU Bin(386)
- Effect of Microalgae Biofertilizer on Growth of Rice Seedlings..... LAN Biao, JIA Jiahuan, SUN Guangren(391)

Plant protection

- Effects of Seed Dressing with Different Pesticides on Wheat Growth and Control Efficiency of Wheat Diseases and Insect Pests
..... WANG Rui, GAO Wei, WANG Kegong(398)
- Identification of Maize Variety Resistance to Dwarf Mosaic Disease and Analysis of Aphid Transmission in Shanxi Province
..... YANG Fan, XIE Xiansheng, ZHANG Zuogang(409)
- Control Effects of 5 Chinese Herbal Medicines Extracts on Fruit Tree Canker FU Baochun, TIAN Yongqiang(419)

Storage and processing

- Optimization of Liquid Fermentation Process of *Leucopaxillus giganteus* by Response Surface
..... WANG Zhiwei, GUO Shang, HOU Leiping, LI Yanting(424)

Review

- Research Progress of the Applications of Sex Control Technologies in Livestock Production
..... XIE Xiaogang, LI Dan, Xue Zengdi, ZHANG Ruiqi, SHI Hongzhao, XUE Jia, MA Naixiang, QUAN Fusheng(433)
- Research Progress of Anti-coccidiosis Halofuginone Hydrobromide
..... FENG Junwu, WEN Fang, ZHANG Song, ZHAO Jingjing, LI Hongquan(439)