



ISSN 1002-2481
CN 14-1113/S

山西農業科學

JOURNAL OF SHANXI AGRICULTURAL SCIENCES

SHANXI NONGYE KEXUE

第48卷第6期（总第412期）

- 中国科技核心期刊
- 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

ISSN 1002-2481



2020 **6**
Vol.48 No.6

山西省农业科学院 主办

目次

生物技术

- 特色油料作物油莎豆 *CeDGAT1* 基因的鉴定及表达分析 高宇,陈莹,孙岩,等(831)
- 亚麻荠 *CsDGAT3* 基因的鉴定与表达分析 高慧玲,张飞,张宏江,等(836)
- 星豹蛛细胞色素 *CYP3001U15* 基因克隆与生物信息学分析 任彦鸿,王雅丽,赵瑞,等(842)
- 不同分子指标鉴定四川雅江鸡蛋菌的差异 石家祺,渠文思,周桂旭,等(847)
- 百香果叶片植株再生快繁技术 苏艳,杨宝明,王丽花,等(851)
- 重组鸡细胞外脂肪酸结合蛋白的原核表达及鉴定 田志雄,李娜娜,卢晓晓,等(855)
- 中华蜜蜂气味受体 *AcerOr2* 基因最佳干扰片段的筛选 郭丽娜,赵慧婷,任有蛇,等(860)

遗传育种

- 中国和印度黍稷的遗传差异分析 林元香,陈小红,王蓉,等(865)
- 国审强筋小麦晋麦 92 号的选育 曹勇,王敏,马小飞,等(872)
- 玉米新品种众德丰 6 号的选育与配套栽培技术 赵变平,王建军,王燕,等(875)

生理生化

- 糜子穗型突变体光合特性比较 王喆,李萌,郝瑞丽,等(879)
- 灌浆期干旱胁迫对燕麦籽粒 β -葡聚糖含量的影响 张俊峰,段娜,刘兵兵,等(884)
- 收获期对玉米种子活力及其理化特性的影响 付宝生,李冬,付晓伟(889)
- 不同药剂处理对菜心种子萌发的影响 李昆峰,张效宁,张倩倩,等(892)
- 硒与锌铁配施对不同核桃品种果实品质的影响 李秋煜,丁欣欣,贾莉芳,等(896)
- 丰花玫瑰与百叶蔷薇香气品质差异成因分析 王肱斐,郝瑞杰(901)
- 白参菌茶固态发酵香气变化机制探讨 蔡丽,陈林波,浦绍柳,等(906)
- 树形及砧木对酿酒葡萄挥发性物质的影响 郭文娇,郭建勇,袁琳,等(910)
- 不同类型林下参开花期 4 种糖含量差异比较 李舒欣,张浩,逢世峰,等(916)
- 玫烟色棒束孢 IF-1106 菌株液体培养条件优化 邓欢,高亚婷,田晶(919)
- 亚慢性砷暴露对小鼠心肌细胞凋亡的影响 李瑞华,韩明盛,胡鑫,等(923)

耕作与栽培

- 水肥一体化条件下不同栽植密度对玉米生长的影响 郑丽萍,刘海,李作一,等(927)
- 山西露地红皮秋萝卜引种试验 张旭,刘钊,左敏,等(930)
- 高架设施草莓品种育苗比较试验 崔文浩,刘伟,樊新萍(933)

资源与环境

- 硒酸钠对小麦幼苗生长及微量元素积累的影响 尹梦娇,赵立松,梁月秀,等(935)
- 不同施肥措施对大豆不同生育时期复垦土壤氮代谢相关酶活性的影响 赵毅璐,洪坚平,孟会生(942)
- 紫薯鄂薯 12 施用 2 种生物菌肥的效应分析 董翠,魏昌松,柴沙沙,等(947)
- 苹果园土壤有效态微量元素与有机质的关系分析 董鹏,潘琪,袁嘉玮(952)
- 关帝山不同林龄华北落叶松人工林土壤化学计量特征及土壤理化性质分析 王平安,任旭明,薄夫京,等(956)

植物保护

- 4 种杀菌剂对远志根腐病的防治效果 刘佳,郭淑红,裴帅帅,等(964)
- 天津地区小花蝽优势种人工饲料探析 许静杨,邹德玉,徐维红,等(967)
- 李子访花昆虫组成特点及影响初探 刘朝红,赵龙龙,张未仲,等(970)

畜牧兽医

- 山西太行黑山羊 mtDNA D-Loop 区遗传多样性分析 闫益波,杜丽英,张伯池,等(974)
- 葡萄籽原花青素对猪背最长肌肌苷酸和肌内脂肪含量的影响 张楠,暴雪艳,郝瑞荣,等(981)
- 不同含量发酵豆粕对断奶仔猪生产性能、养分表观消化率、粪便微生物的影响 党文庆,梁兴龙,何敏,等(986)
- 不同饲草饲喂西门塔尔牛效果分析 范国华,张伟,张阳,等(991)

综述

- 药材道地性分析方法的研究进展 郝耀鹏,吴昌娟,郭淑红,等(994)

农业工程

- HCZ-220 型秸秆粉碎旋耕一体机的研制 黄高鉴,程永钢,郑普山,等(997)

农业经济

- 山西省红枣产业一二三产融合发展问题探讨 程静,何燕,牛燕(1001)

CONTENTS

●Biotechnology

- Identification and Expression Analysis of *CeDGAT1* Gene in *Cyperus esculentus* with a Special Oil Crop GAO Yu, CHEN Ying, SUN Yan, et al(831)
- Identification and Expression Analysis of *CsDGAT3* Genes in *Camelina sativa*(L.) Crantz GAO Huiling, ZHANG Fei, ZHANG Hongjiang, et al(836)
- Cloning and Bioinformatics Analysis of *CYP3001U15* Gene in *Pardosa astrigera*(Araneae:Lycosidae) REN Yanhong, WANG Yali, ZHAO Rui, et al(842)
- Differences of Egg Fungus in Yajiang, Sichuan Province by Different Molecular Indexes Identification SHI Jiaqi, QU Wensi, ZHOU Guixu, et al(847)
- Rapid Propagation Technology of Plant Regeneration from Leaves of *Passiflora edulis* Sims --- SU Yan, YANG Baoming, WANG Lihua, et al(851)
- Prokaryotic Expression and Identification of Recombinant Chicken Extracellular Fatty Acid-binding Protein TIAN Zhixiong, LI Nana, LU Xiaoxiao, et al(855)
- Screening of Best Interference Fragment of *Apis cerana cerana* Olfactor Receptors *AcerOr2* Gene GUO Lina, ZHAO Huiting, REN Youshe, et al(860)

●Genetics and breeding

- Genetic Diversity Analysis of Broomcorn Millet Germplasm from China and India LIN Yuanxiang, CHEN Xiaohong, WANG Rong, et al(865)
- Breeding of National Trial Strong Gluten Wheat Jinmai 92 CAO Yong, WANG Min, MA Xiaofei, et al(872)
- Breeding and Cultivation Techniques of Maize New Cultivar Zhongdefeng 6 ZHAO Bianping, WANG Jianjun, WANG Yan, et al(875)

●Physiology and biochemistry

- Comparison of Photosynthetic Characteristics of Broomcorn Millet Spike Mutants WANG Zhe, LI Meng, HAO Ruili, et al(879)
- Effects of Drought Stress during Filling Stage on β -glucan Content in Oat Kernels ZHANG Junfeng, DUAN Na, LIU Bingbing, et al(884)
- Effect of Harvest Time on Seed Vigor and Physicochemical Properties of Maize FU Baosheng, LI Dong, FU Xiaowei(889)
- Effects of Different Potions Treatments on the Seed Germination of Flowering Chinese Cabbage LI Kunfeng, ZHANG Xiaoning, ZHANG Qianqian, et al(892)
- Effects of Combined Application of Selenium and Zinc Iron on Fruit Quality of Different Walnut Varieties LI Qiuyu, DING Xinxin, JIA Lifang, et al(896)
- Analysis on Cause of Aroma Difference between *Rosa rugosa* 'Fenghua' and *Rosa centifolia* WANG Feifei, HAO Ruijie(901)
- Study on the Aroma Change Mechanism of Solid Fermentation of *Schizophyllum commune* Tea CAI Li, CHEN Linbo, PU Shaoli, et al(906)
- Effects of Tree Shapes and Rootstock on Volatile Substances in Wine Grapes GUO Wenjiao, GUO Jianyong, YUAN Lin, et al(910)
- Comparison of Four Kinds of Sugar Content in Flowering Stage of Different Types of Forest Cultivated *Panax ginseng* LI Shuxin, ZHANG Hao, PANG Shifeng, et al(916)
- Optimization of Liquid Culture Conditions of *Isaria fumosorosea* IF-1106 Strain DENG Huan, GAO Yating, TIAN Jing(919)
- Effects of Subchronic Arsenic Exposure on Cardiomyocyte Apoptosis of Mice LI Ruihua, HAN Mingsheng, HU Xin, et al(923)

●Cultivation

- Effect of Different Planting Density on Maize Growth Under the Condition of Water and Fertilizer Integration ZHENG Liping, LIU Hai, LI Zuoyi, et al(927)
- Introduction Experiment of Autumn Radish with Red Skin in Shanxi Open Field ZHANG Xu, LIU Zhao, ZUO Min, et al(930)
- Comparative Experiment of Strawberry Varieties in Elevated Facilities CUI Wenhao, LIU Wei, FAN Xiping(933)

●Resources and environment

- Effects of Sodium Selenate on Seedling Growth and Trace Element Accumulation of Wheat YIN Mengjiao, ZHAO Lisong, LIANG Yuexiu, et al(935)
- Effects of Different Fertilizing Measures on Activities of Enzymes Related to Nitrogen Metabolism in Reclaimed Soil at Different Growth Stages of Soybean ZHAO Yijun, HONG Jianping, MENG Huisheng(942)
- Analysis on Effects of Application of Two Biological Bacterial Fertilizer to Purple Sweet Potato Eshu 12 DONG Cui, WEI Changsong, CHAI Shasha, et al(947)
- Analysis of Relationship between Available Trace Elements and Organic Matter in Apple Orchard Soil --- DONG Peng, PAN Qi, YUAN Jiawei(952)
- Analysis on Soil Stoichiometric Characteristics and Soil Physicochemical Properties of *Larix principis-rupprechtii* Plantations in Different Forest Ages in Guandi Mountain WANG Ping'an, REN Xuming, BO Fujing, et al(956)

●Plant protection

- Control Effect of Four Fungicides on the Control of Root Rot of *Polygala tenuifolia* Willd. LIU Jia, GUO Shuhong, PEI Shuaishuai, et al(964)
- Study on Artificial Feed of Predominant Species of *Orius sauteri* in Tianjin XU Jingyang, ZOU Deyu, XU Weihong, et al(967)
- Preliminary Study on Composition and Influence of Flower-visiting Insects in Plum LIU Zhaozhong, ZHAO Longlong, ZHANG Weizhong, et al(970)

●Animal husbandry and veterinary

- Genetic Diversity Analysis of mtDNA D-Loop Region in Shanxi Taihang Black Goat YAN Yibo, DU Liying, ZHANG Bochi, et al(974)
- Effect of Grape Seed Proanthocyanidins on Inosinic Acid and Intramuscular Fat Content of Longissimus Dorsi in Pigs ZHANG Nan, BAO Xueyan, HAO Ruihong, et al(981)
- Effects of Different Levels of Fermented Soybean Meal on Growth Performance, Nutrient Apparent Digestibility and Fecal Microorganism of Weaned Piglets DANG Wenqing, LIANG Xinglong, HE Min, et al(986)
- Analysis on Effect of Different Forages on Simmental Beef Cattle FAN Guohua, ZHANG Wei, ZHANG Yang, et al(991)

●Review

- Research Progress of Analytical Methods for Medicinal Materials Authenticity HAO Yaopeng, WU Changjuan, GUO Shuhong, et al(994)

●Agricultural engineering

- Development of HCZ-220 Type Straw Crushing and Rotary Tillage Integrated Machine HUANG Gaojian, CHENG Yonggang, ZHENG Pushan, et al(997)

●Agricultural economy

- Study on Integration Development of Shanxi Jujube Industry CHENG Jing, HE Yan, NIU Yan(1001)