

江苏农业科学

第 45 卷 第 20 期 2017 年 10 月 20 日

目 次

● 专论与综述

- 水稻抗虫害相关基因的研究进展 朱克明,陶慧敏,徐 硕(1)
- 失地农民问题研究新进展 李 岩,赵翠霞(5)
- 西南喀斯特石漠化治理研究进展 方 翌,李仕蓉(10)
- 分子遗传改良技术在杨树上的研究与应用进展 王沛雅,杨 晖,郭 琪,等(17)
- 中国基本农田的研究综述 吕振宇,牛灵安,郝晋珉(24)
- 水稻植株对稻田甲烷排放影响的研究进展 田 婷,张 青,蒋华伟,等(28)
- 荠菜贮藏特性及贮藏技术研究进展 孙灵湘,杨代凤,刘腾飞,等(32)

● 生物技术

- 二倍体棉花热激转录因子 HSFs 家族全基因组生物信息学分析 张华崇,闫振华,赵树琪,等(35)
- 芒果 ANS 基因的鉴定及与其他植物的比较分析 盖江涛,黄建峰,党志国,等(43)
- 桃蛀螟 *CpnuPBP2* 基因的全长序列克隆、分子结构及系统发育分析 朱秀云,徐 鹿,王志强,等(50)
- 基于分子动力学模拟研究定点突变对葡聚糖酶热稳定性的影响 韦阳道,易 弋,石征宇,等(54)
- 基于线粒体 DNA D-loop 序列分析刀鲚与短颌鲚的遗传多样性 张燕萍,贺 刚,王 生,等(59)
- 基于高通量测序的野生毛葡萄转录组 SSR 信息分析 方 辉,蒋胜理,曲俊杰,等(64)
- 2 种蛋白质组学方法在石榴中的应用比较 曹尚银,牛 娟,张 杰,等(68)
- 多油辣木转录组高通量测序及分析 欧 奇,李 鑫,田 洋,等(71)

● 遗传育种与耕作栽培

- 美国玉米杂交种分离后代表型的多样性 张春宇,秦红珍,林 凤(76)
- 沿海滩涂土壤大麦氮、磷、钾最佳施用量研究 诸海焘,李国梁,施圣高,等(80)
- 甘蓝型油菜白花性状的遗传规律 黄 萌,张建栋,陈培峰,等(83)
- 盐胁迫对向日葵木质部离子转运的影响 刘 杰,耿淑娟(85)
- 新疆膜下滴灌高产春玉米水肥优化研究 郭 斌,赵新俊,王 璞,等(88)
- 甜高粱新品种(系)综合评价与聚类分析 高 进,蔡立旺,王永慧,等(93)
- 持续自然降温对不同甘蔗品种形态及生理指标的影响 李素丽,史晓朋,李志刚,等(98)
- 过氧化氢浸种处理对油菜幼苗抗寒生理特性的影响 叶朝军,万 林,孙 继,等(104)
- 甜菜雄性不育系高效组培再生体系的建立 张自强,白 晨,张惠忠,等(107)

● 植物保护

- 黑龙江省水稻品种抗性 with 稻瘟病菌致病性年际变化趋势分析 马军韬,张国民,张丽艳,等(109)

贵州猕猴桃溃疡病病菌分离鉴定及其培养特性	龙云川, 彭 熙, 李苇洁, 等(114)
番茄脐腐病发生与元素运移的关系	武雅文, 顾闽峰, 隆小华(117)
川楝素和吡虫啉对瓜蚜联合作用的研究	张 波, 郁春柳, 杨得恩, 等(121)
马铃薯晚疫病病害动态规律及药剂防治技术研究	马永强, 朱海霞, 郭青云(123)
外来入侵植物刺苍耳种子各萃取相化感作用比较	袁着耕, 刘 影, 邵 华, 等(126)
几种中药提取液对番茄病害病原真菌的抑制效果	严 希, 田山君, 裴 芸, 等(129)

●园艺与林学

海鲜菇工厂化瓶栽优良菌株的筛选	黄 亮, 王 玉, 班立桐, 等(135)
茉莉酸甲酯对高温胁迫、生物蚕食无花果幼苗的影响	郭正兵, 韩柏明, 郭 强(138)
混合盐胁迫对水飞蓟种子萌发期耐盐性及水飞蓟宾含量的影响	刘广娜, 杨祥波, 胡善凯(144)
杜鹃红山茶无土栽培基质的筛选	李先民, 蒋月喜, 李春牛, 等(147)
补血草种子萌发对温度、NaCl 胁迫的响应	王兴翠, 彭佃亮, 乔 宁, 等(151)
猕猴桃嫩砧嫁接试验	秦洪波, 郭伦发, 王新桂, 等(155)
小尺度园林空间与意境营造设计的研究——基于尼泊尔梦想花园为例分析	易 俊(157)
柑橘黄龙病对赣南脐橙果园土壤生物学性质的影响	管 冠, 何天养, 朱 婧, 等(162)
化肥施用量对基质栽培樱桃番茄产量品质的影响及基质重茬利用效果	宋修超, 郭德杰, 马 艳, 等(165)
马哈利樱桃根际产吡啶乙酸细菌多样性及产素能力研究	赵柏霞, 闫建芳, 夏国芳, 等(169)
矮生沿阶草茎尖离体培养及其植株再生	丁久玲, 郑 凯(173)
5-氨基乙酰丙酸(ALA)对秦岭高山杜鹃耐热性的诱导效应	李小玲, 华智锐, 张丹婷(176)

●畜牧兽医与水产蚕桑

洪泽湖河蚬空间分布及资源量研究	张彤晴, 唐晟凯, 李大命, 等(180)
秀丽高原鳅繁殖生物学研究	梁 祥, 冷 云, 李光华, 等(187)
“标准化”背角无齿蚌幼蚌的不同组织对镉的脂质过氧化响应特征	陈修报, 刘洪波, 苏彦平, 等(190)
南美白对虾 CuZnSOD 原核表达及抗体制备	陈晓燕, 黄明珠, 张 妮, 等(193)
添加尿素青贮玉米秸秆对肉羊有效性的影响	申爱华, 李保全, 周 蔚, 等(196)
光照度对柞蚕卵繁殖赤眼蜂效果的影响	李天昊, 张 波, 杜文梅, 等(199)

●贮藏加工与检测分析

QuEChERS - 液相色谱 - 离子阱 - 飞行时间质谱法快速筛查玉米酒糟粕中的 10 种真菌毒素	张 帆, 王美玲, 戴洁芸, 等(202)
超低温冻融联合超声对生姜中姜辣素提取的影响	于 博, 张 瑶, 吴进菊, 等(206)
微波冻干过程中微波功率控制技术的研究	吴朋来, 胡志超, 吴 峰, 等(209)
蔬菜、茶叶中克百威酶联免疫检测方法的建立	何方洋, 冯才伟, 杜美红, 等(213)
黄芩红外干燥特性及动力学模型研究	崔 莉, 宋祥云, 杜利平, 等(216)
低温贮藏条件下 EVOH 材料包装对大米品质的影响	臧 茜, 梅丽娟, 王 悦, 等(222)
榆耳低聚肽的制备及抗氧化活性研究	常桂英, 于加平, 高桂凤(225)
三角槭秋叶色素的测定及时序变化分析	王红梅, 王永平, 陈丽如, 等(228)

●农业工程与信息技术

一种链式果园施肥开沟机开沟刀的有限元分析 胡志勇,郭艳坤,明 宇(231)

基于模态及谐响应的谷物联合收获机割台振动分析 伍扬华,吴崇友(237)

基于卷积神经网络的水稻虫害识别 梁万杰,曹宏鑫(241)

一种基于 SOM 的多维农业时空数据可视化分析方法 彭 俊,卢艳松,夏 凯(244)

●资源与环境

基于 GIS 与 CA - Markov 的吉林西部土地覆被演变及预测 刘家福,王鑫全,韩 程,等(249)

基于 Landsat 8 数据单通道算法反演地表温度——以济南市为例 夏安全,齐建国,姜振飞,等(254)

作物生产潜力订正对耕地自然质量等别的影响——以云南省陆良县 3 种指定作物为例
..... 马 悦,廖丽君,张建生,等(259)

山东省土地城镇化时空格局演变研究 曹 萍,任建兰(264)

基于 GIS 与 RS 的贵州省芒果种植气候区划 吴小波,韩树全,黄 海,等(268)

1 株耐热纤维素酶产生菌的筛选及其酶学特性 金 伟,陈文静,缪礼鸿,等(272)

1 株海洋来源产阿魏酸酯酶菌株的筛选及其对木质纤维材料的降解能力 桑姝丽(275)

果胶酶高产菌株的微波 - 硫酸二乙酯复合诱变选育 杜国军,田英华,刘晓兰(279)

氯菊酯微生物手性降解的研究 李 森,田 晶,李朝阳,等(282)

白木香结香树脂部内生真菌的分离及其结香菌筛选 黄秋伟,王丽萍,黄显雅,等(285)

长江中下游粮食主产区耕地生态安全评价——基于省级面板数据 宋振江,杨 俊,李 争(290)

无机磷降解菌株的分离、鉴定及解磷能力 吕 睿,贾凤安,刘 晨,等(295)

稀土尾矿库复合污染对周边土壤肥力的影响 代 静,司万童,赵雪波,等(299)

●农业经济与管理

我国农村电子商务产业集群演进中的电商平台作用机制 田真平,王志华(304)

电子商务发展的时空分异及对经济增长的带动作用——基于中国省际面板数据的实证分析
..... 王新宇,丁疆辉,赵军阳(309)

经济发展水平对生鲜农产品物流发展影响的实证研究——基于四川的调研数据 徐光顺,王 程(315)

江苏农村电商典型模式分析与创新探讨 胡永盛(319)

世界蜂产品生产与贸易状况分析 李瑞珍,刘世丽,吴 杰,等(322)

农业科研项目运行质量信息化控制方法探讨 陈晓静,朱 明,王茂文,等(327)

基于 AHP 的农民专业合作社信用合作风险评价指标体系的构建 王 璐,吴东立(330)

农业科研单位干部挂职培养机制创新研究——以江苏省农业科学院“院地合作”挂职模式为例
..... 周蓓蓓,单成俊,聂亚锋,等(335)

粮食主产区建立补偿机制的依据及保障措施 焦晋鹏(337)

基于过度自信的鲜活农产品质量演化博弈 孙玉玲,纪贤兵,陈凤娇(341)

个体小规模经营模式下农业发展的博弈论探讨——从个体理性到集体理性 霍 远,王付海(345)

新媒体环境下的农超对接三方博弈 王泽鹏,何明珂,涂 超,等(348)

农资共同配送成本分摊模型问题研究 霍 红,臧 旭,徐玲玲(352)

基于 CiteSpace 的土地增值收益及其分配研究进展与演化趋势 张雅琪,郑荣宝,唐晓莲,等(355)

JIANGSU AGRICULTURAL SCIENCES

Vol. 45 No. 20 October 20 2017

CONTENTS

Monograph and Review

Research progress of pest resistance related genes in rice	Zhu Keming, et al(1)
New research progress of problems of landless peasants	Li Yan, et al(5)
Research progress of karst rocky desertification control in Southwestern China	Fang Zhao, et al(10)
Research and application progress of molecular genetic improvement technology in poplar	Wang Peiya, et al(17)
Study on China's capital farmland: a review	Lü Zhenyu, et al(24)
Progress in research on the effects of rice plants on methane emission from paddy fields	Tian Ting, et al(28)
Research progress on storage characteristics and storage technology of <i>Capsella bursa – pastoris</i>	Sun Lingxiang, et al(32)

Bio-technology

Genome – wide analysis of transcription factor HSFs family in diploid cotton through bioinformatics technology	Zhang Huachong, et al(35)
Identification of <i>ANS</i> gene in <i>Mangifera indica</i> and its comparison analysis with other plants	Gai Jiangtao, et al(43)
Full – length sequence cloning, molecular structure and phylogenetic analysis of <i>CpunPBP2</i> gene from <i>Conogethes punctiferalis</i>	Zhu Xiuyun, et al(50)
Study on influence of site – specific mutagenesis on heat stability of glucanase based on molecular dynamics	Wei Yangdao, et al(54)
Analysis of genetic diversity of <i>Coilia nasus</i> and <i>Coilia brachygnathus</i> based on mitochondrial DNA D – loop sequence	Zhang Yanping, et al(59)
SSR information analysis of <i>Vitis quinquangularis</i> Rehd transcriptome based on high – throughput sequencing	Fang Hui, et al(64)
A comparative study on application of two proteomics methods in pomegranate	Cao Shangyin, et al(68)
High – throughput sequencing and analysis of transcriptome of <i>Moringa oleifera</i> Lam.	Ou Qi, et al(71)

Genetics and Breeding • Tillage and Cultivation

Phenotypic diversity of segregation progenies from American maize hybrids	Zhang Chunyu, et al(76)
Study on optimum application rate of nitrogen, phosphorus and potassium in barley fields of coastal tidal flat	Zhu Haitao, et al(80)
Study on genetic law of white flower color character of oilseed rape(<i>Brassica napus</i> L.)	Huang Meng, et al(83)
Effects of salt stress on xylem ion transport in sunflower	Liu Jie, et al(85)
Study on optimization of water and fertilizer for high – yield spring maize under drip irrigation in Xinjiang area	Guo Bin, et al(88)
Synthetic evaluation and cluster analysis of new sweet sorghum cultivars(lines)	Gao Jin, et al(93)
Effects of continuous natural cooling on morphological and physiological indices of different sugarcane varieties	Li Suli, et al(98)
Effects of H ₂ O ₂ soaking treatment on physiological characteristics of oilseed rape seedlings	Ye Chaojun, et al(104)
Establishment of high efficient tissue culture regeneration system of beet male sterile line	Zhang Ziqiang, et al(107)

Plant Protection

Analysis of interannual variability of rice cultivar resistance and <i>Magnaporthe grisea</i> pathogenicity in Heilongjiang Province	Ma Juntao, et al(109)
--	-----------------------

Isolation , identification and culture characteristics of pathogen of kiwifruit canker in Guizhou Province Long Yunchuan ,et al(114)

Relationship between elements migration and tomato navel rot occurrence Wu Yawen ,et al(117)

Combined effects of toosendanin and imidacloprid on Aphis gossypii Zhang Bo ,et al(121)

Study on dynamic law and chemical control techniques for potato late blight disease Ma Yongqiang ,et al(123)

Comparative study on allelopathic effects of seed extracts of invasive plant Xanthium spinosum L. Yuan Zhuogeng ,et al(126)

Inhibitory effects of different Chinese herbs extracts against pathogenic fungi from tomato disease Yan Xi ,et al(129)

Horticulture and Forestry

Screening of fine strains of Hypsizygus marmoreus for factory bottle cultivation Huang Liang ,et al(135)

Effects of methyl jasmonate on fig seedlings under high temperature and biological encroachment stress Guo Zhengbing ,et al(138)

Effects of mixed salt stress on salt tolerance during seed germination and silybin contents of Silybum marianum Liu Guangna ,et al(144)

Screening of soilless culture substrate of Camellia azalea Li Xianmin ,et al(147)

Response of Limonium sinense seed germination to temperature ,NaCl stress Wang Xingcui ,et al(151)

Twig grafting experiment of kiwifruit Qin Hongbo ,et al(155)

Study on design of small scale garden space and artistic conception—Taking Nepal Dream Garden as an example Yi Jun(157)

Effects of citrus Huanglongbing on soil biological properties of navel orange orchard in southern Jiangxi Guan Guan ,et al(162)

Effects of chemical fertilizer application on yield and quality of cherry tomato cultivated in substrate and substrate stubble utilization effect Song Xiuchao ,et al(165)

Study on diversity of IAA – producing rhizoacteria of Mahaleb cherry and their IAA production ability Zhao Baixia ,et al(169)

In vitro shoot – tip culture and plant regeneration of Ophiopogon japonicas f. nanus Ding Jiuling ,et al(173)

Induction effect of 5 – aminolevulinic acid (ALA) on heat tolerance of Rhododendron lapponicum in Qinling area Li Xiaoling ,et al(176)

Husbandry and Veterinary • Aquaculture and Sericulture

Study on spatial distribution and reserve of Corbicula fluminea in Hongze Lake Zhang Tongqing ,et al(180)

Study on reproductive biology of Triplophysa venusta Zhu et Cao Liang Xiang ,et al(187)

Effects of cadmium on lipid peroxidation in different tissues of “standardized” Anodonta woodiana juveniles Chen Xiubao ,et al(190)

Prokaryotic expression and polyclonal antibody of extracellular copper – zinc superoxide dismutase from white shrimp , Litopenaeus vannamei Chen Xiaoyan ,et al(193)

Impacts of maize stover adding urea silage on effectiveness of mutton sheep Shen Aihua ,et al(196)

Effects of light intensity on parasitism and development of Trichogramma reared on Antheraea pernyi eggs Li Tianhao ,et al(199)

Storage and Processing • Detection

Rapid screening and confirmation of 10 mycotoxins in corn liquor dregs by QuEChERS clean up coupled with liquid chromatography – ion trap – time of flight tandem mass spectrometry Zhang Fan ,et al(202)

Influences of ultra – low temperature freeze – thaw combined with ultrasonic sound on extraction of gingerol from ginger Yu Bo ,et al(206)

Study on microwave power control technology in microwave freeze – drying process Wu Penglai ,et al(209)

Determination of carbofuran residues in vegetable and tea by enzyme – linked immunosorbent assay He Fangyang ,et al(213)

Study on infrared drying characteristics and kinetic model of Scutellaria baicalensis Cui Li ,et al(216)

Effect of EVOH packing material on rice quality under low temperature storage conditions Zang Qian ,et al(222)

Study on preparation and antioxidant activity of oligopeptides from Gloeostereum incarnatum Chang Guiying ,et al(225)

Constituents determination and timing change analysis of pigments in autumn leave of *Acer buergerianum* Wang Hongmei, et al(228)

Agricultural Engineering and Information Technology

Finite element analysis of ditching knife of a fertilization ditching machine in chain orchard Hu Zhiyong, et al(231)

Vibration analysis of hesder of grain combine harvester based on modal and harmonic response Wu Yanghua, et al(237)

Identification of rice insect pests based on CNN model Liang Wanjie, et al(241)

A method for multivariate agricultural spatio – temporal data visualization analysis based on SOM Peng Jun, et al(244)

Resources and Environment

Land cover change and forecast in west of Jilin Province based on GIS and CA – Markov model Liu Jiafu, et al(249)

Inversion of surface temperature based on Landsat 8 data single channel algorithm—Taking Jinan City as an example Xia Anquan, et al(254)

Influence of correction of crop potential productivity on agricultural land natural quality grade—Taking three appointed crops in Luliang County of Yunnan Province as an example Ma Yue, et al(259)

Study on spatial and temporal pattern evolution of land urbanization in Shandong Province Cao Ping, et al(264)

Climatic regionalization of mango planting in Guizhou Province based on GIS and RS Wu Xiaobo, et al(268)

Isolation of a thermotolent cellulase – producing aspergillus fumigatus strain and its cellulase characterization Jin Wei, et al(272)

Isolation of a feruloyl esterase – producing strain from seawater and its ability to degrade lignocellulosic materials Sang Shuli(275)

Mutation breeding of high – yield pectinase – producing strain by microwave and DES Du Guojun, et al(279)

Study on enantioselective degradation of permethrin by a dominant bacterium Li Sen, et al(282)

Isolation and screening of endophytic fungi from resin formation section of *Aquilaria sinensis* Huang Qiuwei, et al(285)

Study on ecological security evaluation of cultivated land of main grain production area in lower Yangtze region —Based on provincial panel data Song Zhenjiang, et al(290)

Isolation, identification and phosphorus – solubilizing ability of inorganic phosphorus degradation strain Lü Rui, et al(295)

Influence of rare tailings compound contamination on fertility of surrounding soil Dai Jing, et al(299)

Agricultural Economy and Management

Mechanism of e – commerce platform during forming and evolution of e – commerce industrial clusters in China’s rural area Tian Zhenping, et al(304)

Spatial – temporal variation of e – commerce development and its leading role in economic growth—An empirical analysis based on China’s provincial panel data Wang Xinyu, et al(309)

An empirical study on impacts of economic development level on logistics development of fresh agricultural products —Based on survey data in Sichuan Province Xu Guangshun, et al(315)

Analysis and innovation discussion on typical model of rural e – commerce in Jiangsu Province Hu Yongsheng(319)

Analysis of production and trade of bee products on a world – wide scale Li Ruizhen, et al(322)

Study on information control method of operation quality of agricultural scientific research project Chen Xiaojing, et al(327)

Construction of credit cooperative risk evaluation index system of farmers’ cooperatives based on AHP Wang Lu, et al(330)

Innovative research on training mechanism of staffs in agricultural research institutions —A case study on cooperative model of JAAS staffs serving temporary positions in municipal government sectors Zhou Beibei, et al(335)

Basis and safeguard measures of establishing compensation mechanism in main grain producing areas Jiao Jinpeng(337)

Evolution game of fresh agricultural products quality based on overconfidence Sun Yuling, et al(341)

Discussion on game theory of agricultural development under individual small – scale management mode—From individual rationality to collective rationality Huo Yuan, et al(345)

Tripartite game of farming – supermarket docking under new media environment Wang Zepeng, et al(348)

Study on problems of joint distribution cost allocation model of agricultural materials Huo Hong, et al(352)

Development and evolutionary tendency of land value increment and distribution based on CiteSpace Zhang Yaqi, et al(355)