

江苏农业科学

第 47 卷 第 17 期 2019 年 9 月 5 日

目 次

●“乡村振兴”专栏

- 产业兴旺的定位、特征与促进建议 徐雪高,侯惠杰(1)
生鲜农产品电子商务消费者满意度影响因素——基于在线评论的探索分析 张红霞(4)
计划行为理论下对农户土地流转意愿和行为研究——基于山东省 549 户农户的调查
..... 王海滋,李超伟,张士彬,等(9)
苏北地区精准扶贫的问题和对策建议 王海鸽,马鑫宇,李浩昇(14)
湖羊三产融合商业模式探析——以苏州金仓湖农业科技股份有限公司为例
..... 程金花,亢志华,王海涛,等(19)
江苏省发展生鲜农产品电商的主要举措、存在问题及对策建议 施宇恬,朱方林(23)
供给侧改革背景下农业信息服务供给评价——基于新疆棉农的实证 蒲娟,余国新,于雅雯(27)
乡村振兴战略下农业产业化联合体创新发展研究——运营特征、发展困境和路径分析 周昊天(32)
中国美丽乡村标准化发展路径与经验 全国栋,应珊婷,姚晗珺,等(36)
基于 AHP 和 FUZZY 的富硒康养旅游开发潜力评价——以湖北省建始县为例
..... 万芸,肖拥军,唐嘉耀(40)

●生物技术

- 荸荠多酚氧化酶基因的克隆及其在鲜切荸荠贮藏过程中的表达分析 宋慕波,帅良,方方,等(46)
荷花淹水胁迫下实时定量 PCR 内参基因的验证 徐君,江君,王欢,等(50)
19 个香菇菌株基于 ISSR、SRAP 和 TRAP 分子标记的遗传多样性分析 汪昊,牛玉蓉,荣成博,等(54)
闽西地区猪流行性腹泻病毒 N 基因分子进化及序列分析 董波,李静楠,曹雪珍,等(59)
猪热休克蛋白 40 (Hsp40) 基因的克隆及过表达和 RNA 干扰载体的构建
..... 卓严玲,颜秋,邓启霞,等(63)

- 甘草 MYB 转录因子 *G1MYB10* 的克隆与表达分析 王佳琦,王璐,潘玉光,等(67)
基于 ITS2 的北沙参药材及其伪品的分子鉴定 韩晓伟,曹楸伟,严玉平,等(71)
滇龙胆草 7 - 脱氧番木鳖酸 -7 - 羟化酶基因的克隆与表达分析 张晓东,李彩霞,王元忠(76)

●遗传育种与耕作栽培

- 小麦面团粉质特性的遗传分析 于红彩,胡铁柱,李淦,等(82)
壳聚糖浸种对小麦出苗及活性物质的影响 朱云林,顾大路,王伟中,等(85)
包膜控释尿素对玉米花后干物质和氮素积累与分配的影响 郭松,喻华,曾祥忠,等(88)

- 不同年代冬小麦品种氮素吸收利用和产量对施氮水平的响应 龙致炜,宋广鹏,张军,等(93)
不同年代小麦品种干物质运转和产量的差异 王贺正,董方方,马超,等(98)
黄壤甘蓝-烤烟模式下氮钾利用对氮钾配施的响应 魏全全,赵欢,张萌,等(101)
黑龙江种植区不同玉米品种胚乳淀粉粒发育对比分析 戴凌燕,蔡欣月,刘玉涛,等(106)
不同生物炭混施对土壤养分和蚕豆生长的影响 凌宏伟,李小英,周月惠,等(110)
鸡骨草茎叶水提液对10种农作物种子的化感效应 朱艳霞,黄燕芬(113)

●植物保护

- 设施黄瓜霜霉病高光谱特征选择及预测模型 元菊侠,赵家奇,吴雅茹,等(117)
荔枝病虫害及其防治研究进展 王松,谢银燕,张成彬,等(120)

- 乳浆大戟毒素对枸杞棉蚜解毒酶活性的影响 刘畅,王芳,陈晓婷,等(125)

●园艺与林学

- 设施黄瓜果期不同叶序叶片的气孔特性 张旭然,杨世琼,王琳,等(128)
氮肥减量施用条件下配施土壤调理剂对白菜生长、产量和品质的影响

..... 王亚晨,蒋芳玲,唐静,等(132)

- 不同类型果袋微环境对富士苹果果实发育和品质的影响 王贵平,翟浩,陈汝,等(138)

- 生物炭对连作障碍条件下土壤微生物和草莓生长的影响 马丽,齐红志,闫明,等(142)

- 高温胁迫对3个番茄品种生长和生理指标的影响 赵勇竣,徐术菁,王钊,等(147)

- 椰糠复合基质对温室番茄生长及品质的影响 刘佳,季延海,王宝驹,等(150)

- 日光温室栽培模式下不同人参的生理指标差异分析 常思佳,任跃英,李嘉丰,等(154)

- 猴头菇液体菌种中杂菌的分离鉴定及变化规律 张楠,李鑫,唐宗福,等(157)

- 盐碱胁迫对龙葵种子萌发及幼苗生长的影响 于爽,高剑,杨新宇,等(162)

- 贡菊不同花期3种活性物质含量及相关基因表达 岳圆圆,全英杰,任镘蓉,等(165)

- 台州地区猕猴桃不同品种的果实品质表现 庞一波,潘仙鹏,刘守平,等(169)

- 苹果砧木实生后代与亲本之间相关性状的研究 焦灰敏,党艳青,周小魏,等(172)

●畜牧兽医与水产蚕桑

- 海滨锦葵根粉对肉鸡生长性能、屠宰性能、免疫性能和抗氧化性能的影响

..... 孙建国,张焕仕,付胜勇,等(176)

- 三七参与炎症痛大鼠痛觉调节作用 倪慧妹,付立波,马铭阳,等(180)

- 雌激素缺乏对猫血液中脂质代谢、脂肪细胞因子及炎症因子表达的影响

..... 陆江,武俊海,朱道仙,等(183)

- 含腐败梭菌 α 毒素和产气荚膜梭菌 ϵ 毒素基因的重组大肠杆菌的高密度发酵和免疫效果

..... 彭小兵,杜吉革,彭国瑞,等(186)

- 牛传染性鼻气管炎病毒部分gB蛋白的原核表达及抗原性分析 何小丽,李凡飞,王文佳,等(189)

- 内毒素对妊娠小鼠子宫内巨噬细胞的影响 王婷婷,胡萍,张顺利(193)

- 海康鸡屠宰性能及肉质特性分析 肖俊,华国洪,李华,等(196)

- 桑杜口服液急性毒性和长期毒性试验 奚照寿,姚月琴,陈晓兰,等(201)

● 贮藏加工与检测分析

- 桑葚浓缩汁的制备工艺优化及其抗氧化活性 曹培杰, 马艳弘, 崔晋, 等(204)
壳聚糖季铵盐和皂土在黑莓果酒澄清中的应用 黄自苏, 周剑忠, 李亚辉, 等(210)
不同类型土壤养分区域对烟叶工业可用性的影响 吴龙, 蓝周焕, 张汉千, 等(213)
沃柑低温环境贮藏的品质变化分析 李果果, 欧智涛, 陈东奎, 等(219)
不同产地艾叶红外指纹图谱研究 李超, 姬鹏鹏, 黄显章, 等(222)
罗氏沼虾仁制品货架期模型的建立 李莹, 李建, 夏伟荣, 等(225)

● 农业工程与信息技术

- 基于 Simulink 的纯电动拖拉机传动系统仿真研究 张鑫, 赵光龙, 葛红恩, 等(229)
“互联网”下的农产品物流车辆配送路线研究 王红艳, 朱鑫彦(233)
基于并行蚁群算法的设施温室机器人多点路径规划的研究 王红君, 付勇, 岳有军, 等(237)
马铃薯收获机的设计与试验 刘潇, 李亮亮, 戚江涛, 等(242)
铜胁迫下玉米叶片污染信息监测模型 高鹏, 杨可明, 王敏, 等(248)
挤搓式玉米脱粒机脱粒装置的改进与试验 马丽华, 朱春梅, 赵西伟(252)

● 资源与环境

- 径流污染对 2 种地被植物固碳释氧降温增湿能力的影响 刘海荣, 冀媛媛, 姚艳丽, 等(257)
基于信息熵的重庆市土地利用结构时空演变及其驱动因素分析 于雪丽, 郭欢欢, 李灿, 等(261)
头花蓼整株及根际土壤水浸提液的化感自毒作用 刘勇, 刘燕, 王星星, 等(266)
增施有机肥对黄泛冲积区贫瘠土壤养分和玉米产量的影响 张奇, 张振华, 刘丽珠, 等(271)
长期定位施肥对旱作土壤团聚体及养分的影响 王晓军, 孙玉琴, 王勇, 等(276)
河南省许昌市降雨侵蚀力演变特征研究 杨孟豪, 曹连海, 夏帆, 等(281)
一株高产淀粉酶放线菌的筛选鉴定及产酶条件优化 袁春营, 孟阳, 吴佩佩, 等(288)
气候变化背景下四川省设施农业气候资源特征分析 郑昊, 王明田, 张菡, 等(292)
冀东地区降水特征变化对冬枣管理模式的影响 孙爱良, 何璇(301)
赣南地区近 40 年秋冬季降水量变化及对甜柚的影响 卓红秀, 郭鑫宇, 廖德华, 等(305)
高浓度养牛废水化学絮凝预处理技术 任秋慧, 邹广彬, 史吉平, 等(309)
不同施肥方式对稻田氨挥发特征的影响 邢月, 沙之敏, 卑志钢, 等(313)

● 农业经济与管理

- 供给侧结构性改革下的国产大豆供给问题研究 刘后平, 王雪梅, 邓浩月(318)
新型城镇化对农业绿色全要素生产率的低门槛效用实证分析 许素琼(324)
京津冀城市群城镇化与生态环境耦合协调关系研究 刘彦彤, 赵爽(330)
喀斯特山区土地整治与区域经济发展的耦合协调性分析——以贵州省为例
..... 金桃, 董艳艳, 肖玖军, 等(334)
河南省农户消费行为特征及影响因素 冯霞, 刘雨婷(338)
宿迁市农业标准化工作现状及发展对策 徐伟, 程凤科, 刘立军(343)

JIANGSU AGRICULTURAL SCIENCES

Vol. 47 No. 17 September 5 2019

CONTENTS

Rural Revitalization

Orientation, characteristics and promotion suggestions of industrial prosperity	Xu Xuegao, et al(1)
Factors affecting consumers' satisfaction on e-commerce of fresh agricultural products—An exploratory analysis based on online review	Zhang Hongxia, et al(4)
Study on farmers' willingness and behavior of family land transfer under theory of planned behavior—Based on survey of 549 households in Shandong Province	Wang Haizi, et al(9)
Problems and suggestions on precision poverty alleviation in Northern Jiangsu	Wang Haige, et al(14)
Study on business model of "Three Industries Integration" of Hu sheep—Taking Jincanghu Agricultural Science and Technology Limited Company as an example	Cheng Jinhua, et al(19)
Main measures, existing problems and countermeasures of e-business development for fresh agricultural products in Jiangsu Province	Shi Yutian, et al(23)
Agricultural information service supply evaluation under background of supply-side reform—Empirical evidence based on cotton farmers in Xinjiang area	Pu Juan, et al(27)
Study on innovative development of agricultural industrialization consortium under rural revitalization strategy —Operational characteristics, Development dilemma and path analysis	Zhou Haotian(32)
Study on development path and experience of China's beautiful village standardization	Tong Guodong, et al(36)
Evaluation on development potential of selenium-rich tourist place based on AHP and FUZZY method —Taking Jianshi County, Hubei Province as an example	Wan Yun, et al(40)

Bio-technology

Cloning and expression analysis of <i>PPO</i> gene in fresh-cut Chinese water-chestnut	Song Mubo, et al(46)
Validation of reference genes for quantitative real-time PCR in lotus (<i>Nelumbo nucifera</i>) under submergence treatment	Xu Jun, et al(50)
Genetic diversity analysis of 19 <i>Lentinus edodes</i> strains based on ISSR, SRAP and TRAP markers	Wan Hao, et al(54)
Molecular evolution and sequence analysis of <i>N</i> genes of porcine epidemic diarrhea viruses in Western Fujian	Dong Bo, et al(59)
Cloning and overexpression of porcine heat shock protein 40 (Hsp40) gene and construction of RNA interference vector	Zhuo Yanling, et al(63)
Cloning and expression analysis of <i>Glycyrrhiza</i> MYB transcription factor <i>GMYB10</i>	Wang Jiaqi, et al(67)
Molecular identification of <i>Glehnia littoralis</i> and its counterfeits based on ITS2	Han Xiaowei, et al(71)
Cloning and expression analysis of 7-deoxyloganic acid-7-hydroxylase gene in <i>Gentiana rigescens</i>	Zhang Xiaodong, et al(76)

Genetics and Breeding · Tillage and Cultivation

Genetic analysis of farinograph characteristics of wheat dough	Yu Hongcai, et al(82)
Effects of seed soaking by chitosan on emergence and active substances of wheat	Zhu Yunlin, et al(85)
Effects of controlled release urea on dry matter accumulation and nitrogen absorption and utilization of maize after flowering	Guo Song, et al(88)
Response of nitrogen uptake and utilization and yield to nitrogen application level of winter wheat cultivars in different ages	Long Zhiwei, et al(93)

Study on difference of dry material translocation and yield of wheat cultivars in different years	Wang Hezheng, et al(98)
Response of nitrogen and potassium utilization to nitrogen and potassium application under cabbage – tobacco rotation mode in yellow soil	Wei Quanquan, et al(101)
Comparative analysis of starch granule development in endosperm of different maize cultivars in Heilongjiang Province	Dai Lingyan, et al(106)
Effects of mixed application of biochar on soil nutrients and broad bean growth	Ling Hongwei, et al(110)
Allelopathic effects of water extracts from stems and leaves of <i>Abrus cantoniensis</i> on 10 crop seeds	Zhu Yanxia, et al(113)

Plant Protection

Hyperspectral feature selection and prediction model for facility cucumber downy mildew	Kang Juxia, et al(117)
Research progress on prevention and control of <i>Litchi chinensis</i> pests and diseases	Wang Song, et al(120)
Effect of <i>Euphorbia lactis</i> toxin on detoxification enzyme activity of <i>Aphis gossypii</i>	Liu Chang, et al(125)

Horticulture and Forestry

Stomatal characters of cucumber (<i>Cucumis sativus</i> L.) leaves with different phyllotaxis during fruiting period in greenhouse	Zhang Xuran, et al(128)
Effects of application of soil conditioners on growth, yield and quality of Chinese cabbage under nitrogen fertilizer reduction application	Wang Yachen, et al(132)
Impacts of different types of fruit bag microenvironment on fruit development and quality of Fuji apple	Wang Guiping, et al(138)
Effects of biochar on soil microorganism characteristics and strawberry growth under continuous cropping obstacle	Ma Li, et al(142)
Influences of high temperature stress on growth and physiological indices of three tomato cultivars	Zhao Yongjun, et al(147)
Effects of coconut bran composite substrate on growth and quality of tomato in greenhouse	Liu Jia, et al(150)
Analysis of differences in physiological indices of different ginseng cultivars under solar greenhouse cultivation mode	Chang Sijia, et al(154)
Isolation, identification and variation of pathogen from <i>Hericium erinaceus</i> liquid spawn	Zhang Nan, et al(157)
Effects of mixed saline – alkali stress on seed germination and seedling growth of <i>Solanum nigrum</i>	Yu Shuang, et al(162)
Three active components contents and related gene expression of chrysanthemum “Gongju” at different flowering stages	Yue Yuanyuan, et al(165)
Fruit quality performance of different kiwifruit varieties in Taizhou area	Pang Yibo, et al(169)
Study on correlation traits between descendants and parents of apple rootstocks	Jiao Huimin, et al(172)

Husbandry and Veterinary • Aquaculture and Sericulture

Effects of <i>Kosteletzky virginica</i> root flour on growth performance, slaughter performance, immunity performance and antioxidant ability of broilers	Sun Jianguo, et al(176)
<i>Panax notoginseng</i> participates in pain regulation in rats with inflammatory pain	Ni Huizhu, et al(180)
Effects of estrogen deficiency on lipid metabolism, adipocytokines and inflammatory factors in cat blood	Lu Jiang, et al(183)
High – density fermentation and immune effect of recombinant <i>Escherichia coli</i> containing <i>Clostridium putrificum</i> α toxin and <i>Clostridium perfringens</i> ϵ toxin genes	Peng Xiaobing, et al(186)
Prokaryotic expression and antigenicity analysis of gB protein of infectious bovine rhinotracheitis virus	He Xiaoli, et al(189)
Effect of endotoxin on macrophage from uterus of pregnant mouse	Wang Tingting, et al(193)
Study on slaughter performance and meat quality of Haikang chickens	Xiao Jun, et al(196)
Acute toxicity and long – term toxicity test of Sandu oral solution	Xi Zhaozhou, et al(201)

Storage and Processing • Detection

Optimization of preparation process and antioxidant activity of mulberry concentrated juice	Cao Peijie, et al(204)
---	------------------------

Application of chitosan quaternary ammonium salt and bentonite in clarification of black berry wine	Huang Zisu, et al(210)
Effects of different soil nutrition regions on industrial availability of tobacco leaves	Wu Long, et al(213)
Analysis of quality changes of low - temperature environment storage of Orah	Li Guoguo, et al(219)
Study on infrared fingerprint of <i>Artemisia argyi</i> from different geographical origins	Li Chao, et al(222)
Establishment of shelf life model for giant river prawn meat products	Li Ying, et al(225)
Agricultural Engineering and Information Technology	
Simulation research on transmission system of pure electric tractor based on Simulink	Zhang Xin, et al(229)
Study on distribution route of agricultural products logistics vehicle under “Internet”	Wang Hongyan, et al(233)
Study on multi - point path planning of facility greenhouse robot based on parallel ant colony algorithm	Wang Hongjun, et al(237)
Design and field trial of potato harvester	Liu Xiao, et al(242)
Monitoring model of corn leaf pollution information under copper stress	Gao Peng, et al(248)
Improvement and field trial of threshing device of extruded corn thresher	Ma Lihua, et al(252)
Resources and Environment	
Effects of runoff pollution on ability of carbon fixation, oxygen release, cooling and humidification of two ground cover plants	Liu Hairong, et al(257)
Study on spatio - temporal evolution and driving factors of land use structure in Chongqing City based on information entropy	Yu Xueli, et al(261)
Allelopathic autotoxicity of aqueous extracts from <i>Polygonum capitatum</i> whole plant and its rhizosphere soil	Liu Yong, et al(266)
Effect of adding organic fertilizer on nutrient and corn yield of barren soil in Yellow River alluvial area	Zhang Qi, et al(271)
Impacts of long - term fertilization on dry land soil aggregate and nutrients	Wang Xiaojun, et al(276)
Analysis of evolution characteristics of rainfall erosivity in Xuchang City, Henan Province	Yang Menghao, et al(281)
Screening and identification of a high - yield amylase actinomycete and optimization of conditions for enzyme production	Yuan Chunying, et al(288)
Analysis of characteristics of climate resources for facility agriculture in Sichuan Province under background of climate change	Zheng Hao, et al(292)
Influence of precipitation characteristics change on management model of winter jujube in eastern Hebei	Sun Ailiang, et al(301)
Changes of precipitation in autumn and winter in recent 40 years in southern Jiangxi and its effect on sweet pomelo	Zhuo Hongxiu, et al(305)
Chemical flocculation pretreatment technology for cattle raising wastewater with high concentration	Ren Qihui, et al(309)
Effects of different fertilization methods on ammonia volatilization characteristics in paddy fields	Xing Yue, et al(313)
Agricultural Economy and Management	
Study on domestic soybean supply problem under supply side structural reform	Liu Houping, et al(318)
Empirical analysis of low threshold effect of new urbanization on agricultural green total factor productivity	Xu Suqiong(324)
Study on relationship of coupling coordination between urbanization and ecological environment	Liu Yantong, et al(330)
Analysis of coupling and coordination of land consolidation and regional economic development in karst mountain area —Taking Guizhou Province as an example	Jin Tao, et al(334)
Characteristics and influencing factors of farmers' consumption behavior in Henan Province	Feng Xia, et al(338)
Current situation and development countermeasures of agricultural standardization in Suqian City	Xu wei, et al(343)