

# 江苏农业科学

第 48 卷 第 24 期 2020 年 12 月 20 日

(卷终,附有总目次)

## 目 次

### ●专论与综述

- 中国家蚕种质资源与品种选育研究进展 ..... 钱荷英,张 潇,叶夏裕,等(1)
- 蚕豆常见病毒病的鉴定及分类综述 ..... 徐红梅,庄新建,陈佳欢,等(8)
- 植物褪黑素的研究进展 ..... 陈 贤,杨 勇,刘凤权(17)
- 刺五加的生理功能及在水产动物养殖中的应用综述 ..... 李鸣霄,强 俊,陶易凡,等(25)
- 基于计算机视觉的鱼类摄食行为研究现状及展望 ..... 张重阳,陈 明(31)
- 马口鱼的研究现状及开发利用进展 ..... 钟全福,樊海平,叶小军(37)
- 工夫红茶制作新技术的研究现状 ..... 李荣林,艾仄宜,杨建华,等(41)

### ●生物技术

- T7 噬菌体穿孔素的克隆表达及对宿主损伤研究 ..... 徐 海,鲍 熹,董洪燕,等(45)
- 黑水虻抗菌肽的克隆及其生物信息学分析 ..... 胡珊珊,陈开莉,陈红贤,等(49)
- 二倍体和四倍体西瓜的转录组初步分析 ..... 许 哲,张晨光,张思远,等(53)

### ●遗传育种与耕作栽培

- 苏北地区稻麦周年生产力品种组合筛选 ..... 陶亚军,尹建国,樊继伟,等(60)
- 多效唑和乙烯利对农大 8 号谷子产量的影响 ..... 鱼冰星,王宏富,杨 净(67)
- 江苏省玉米种质对南方锈病的抗病性评价 ..... 任春梅,陆 芳,刘庆强,等(72)
- 叶片采摘对木薯产量的影响及镉胁迫下薯叶饲用品质分析 ..... 赵信林,郭 媛,邱化蛟,等(76)
- 气候变暖对水稻干物质积累和运转的影响 ..... 苏海报,周 云,肖敏光,等(81)
- 播期对豫南粳稻产量和产量结构的影响 ..... 段 斌,李 杰,何世界,等(86)
- 0.02% 二氢卟吩铁可溶粉剂在烟草上的应用效果 ..... 邢宇俊,陈黎明,孟东峰,等(91)

### ●植物保护

- 基于分子对接从天然产物中虚拟筛选 HPPD 先导化合物 ..... 刘学贵,周静瑶,黄明远,等(95)
- 采用半果接种法研究几种杀菌剂对芒果炭疽病的防治效果 ..... 张俊有,蒋家珍(102)
- 基于高通量测序技术的红枣黑斑病病原菌分离与鉴定 ..... 刘晓勤,张锐利(108)
- 江苏省栝楼烂果病病原鉴定及室内防治药剂筛选 ..... 孙 凯,陈夕军,沈迎春,等(112)

### ●园艺与林学

- 乌尔禾区不同生境胡杨年轮宽度变化特征 ..... 赵佳佳,祁睿尹,叶尔江·拜克吐尔汉,等(117)
- 广西天冬种质资源农艺性状的分析与评价 ..... 万凌云,付金娥,潘丽梅,等(124)
- 仿野生栽培不同品种铁皮石斛多品质指标比较 ..... 杨 贞,郑 勇,吴 瑾,等(128)
- 幼龄茶园间作大豆、玉米对土壤养分的影响 ..... 邢 瑶,唐锁海,陈 暄,等(132)
- 1994—2015 年福山区苹果花期物候变化及其气候影响因子分析 ..... 陈星宇,王 冰,董宛麟,等(135)
- 红掌花芽分化进程及其主要生理指标变化研究 ..... 李 心,杨柳燕,顾俊杰,等(140)

牛蒡皮固体发酵杏鲍菇的动力学模型 .....	姚凤腾,董玉玮(144)
基于 UPLC - QTOF/MS 的蓝莓果实发育代谢组学差异分析 .....	王 倩,张长青,李广平,等(148)
德国鸢尾花瓣衰老过程中主要生理指标的变化 .....	王银杰,张永侠,刘清泉,等(153)
●畜牧兽医与水产蚕桑	
2017 年和 2018 年江苏省水生动物气单胞菌分离鉴定及耐药分析 .....	吴亚锋,王楠楠,王晶晶,等(156)
鸽毛滴虫黏附蛋白 AP33 的理化特性与抗原性分析及细胞表位预测 .....	陈文杰,杭柏林,刘保国,等(163)
郑州鲤养殖场鲤急性烂鳃病的症状与病原鉴定 .....	吴玲梅,温智清,杨雪冰,等(167)
牧草类植物对南美白对虾养殖池塘底泥的修复效果 .....	刘立早,张玉平,刘淑梅,等(173)
利用 Illumina MiSeq 测序平台分析沐川乌骨黑鸡空肠微生物多样性 .....	廖 娟,王 钢,喻世刚,等(178)
●贮藏加工与检测分析	
乌鳖黑色素提取工艺及其结构性状 .....	陈逍遥,赵琼瑜,彭振辉,等(182)
不同保色剂对荷花压花颜色的影响 .....	庄 苑,冯 艳,赵佳伦,等(189)
植物源化合物肉桂醛对单核细胞增生李斯特氏菌的抑制作用 .....	王 帆,刘小莉(194)
4 个芳香菊品种花、叶香气成分的 HS - SPME/GC - MS 分析 .....	郭 双,刘 华,罗 昌,等(198)
云南冰糖橙果皮和果肉矿质元素含量与果实品质的关系 .....	寸待泽,普金安,高俊燕,等(207)
AA3 型连续流动分析仪测定植株全氮的方法研究与优化 .....	王 雪(215)
●农业工程与信息技术	
基于微分变换定量反演土壤有机质及全氮含量 .....	高 颖,王延仓,顾晓鹤,等(220)
采摘头输棉通道流场仿真与分析 .....	彭 震,胡 蓉,张若宇,等(226)
中欧荷温室规范风、雪荷载的对比 .....	李一哲,魏晓俊,王川申,等(232)
●资源与环境	
四川省汶川县植被覆盖度空间变化及其自然驱动力 .....	潘荟交,彭文甫,祝 聪,等(239)
生物有机肥对热区烤烟根际土壤酚酸类物质和细菌群落结构的影响 .....	杨 敏,曹敬东,郑元仙,等(244)
基于灌溉渠水质保护的都江堰灌区斗渠廊道 LID 生态措施研究 .....	林子琦,杨青娟(252)
基于 MSPA 的全国主要城市绿地形态时空变化 .....	危小建,孙显星,谢亚娟(260)
基于辅助变量的县域土壤有机质预测 .....	尹 群,郭纪敏,张世文,等(267)
现有空间规划实施评价及冲突协调研究——以江苏丰县为例 .....	赵 新,孙坤慧,孙爱博,等(274)
扬子江城市群国土开发强度与资源环境承载力的时空耦合关系 .....	杨壮壮,王亚华,乔伟峰,等(280)
延安市土地利用变化及生态效应研究 .....	贺炳彦,高 婷(286)
●农业经济与管理	
全国玉米主产区生产效率评价:基于 DEA 交叉效率模型 .....	李 文,周利平,翁贞林(293)
消费者企业社会责任感知、态度与转基因食品购买意愿研究 .....	崔宁波,于 尊(298)
基于三阶段 DEA 模型和 BWM 方法的江苏省现代农业产业示范园绩效评价 .....	何胜男,程永波,于 荣(306)
互联网对农户组织化经营的影响及其提升路径——基于江苏省农业专业合作社的实证 .....	王 莹,苏春阳,姜宛坤,等(312)
新型合作农场发展现状与对策——以南通市为例 .....	袁 骥,李 敏,刘 建(320)
基于计划行为理论的农业类高职院校提升农民培训质量意愿研究 .....	王 瑾,胡恩华(324)
《江苏农业科学》投稿须知 .....	(330)
《江苏农业科学》2020 年第 48 卷总目次 .....	( I )

# JIANGSU AGRICULTURAL SCIENCES

Vol. 48 No. 24 December 20 2020

## CONTENTS

### Monograph and Review

- Research progress on China's silkworm germplasm resources and variety breeding ..... *Qian Heying, et al*(1)
- Identification and classification of common broad bean virus diseases; a review ..... *Xu Hongmei, et al*(8)
- Research progress of plant melatonin ..... *Chen Xian, et al*(17)
- Physiological functions of *Acanthopanax senticosus* and its application in aquatic animal breeding; a review  
..... *Li Mingxiao, et al*(25)
- Research status and outlook of fish feeding behavior based on computer vision ..... *Zhang Chongyang, et al*(31)
- Research status and utilization progress of *Opsariichthys bidens* ..... *Zhong Quanfu, et al*(37)
- Research status of new technology for making Gongfu black tea ..... *Li Ronglin, et al*(41)

### Bio-technology

- Cloning and expression of T7 bacteriophage perforin and its damage to the host ..... *Xu Hai, et al*(45)
- Cloning and bioinformatics analysis of a novel antibacterial peptide from *Hermetia illucens* ..... *Hu Shanshan, et al*(49)
- Transcriptome analysis of diploid and tetraploid watermelon ..... *Xu Zhe, et al*(53)

### Genetics and Breeding · Tillage and Cultivation

- Screening of rice and wheat varieties with annual productivity in northern Jiangsu ..... *Tao Yajun, et al*(60)
- Effect of paclobutrazol and ethephon on yield of millet cultivar "Nongda No. 8" ..... *Yu Bingxing, et al*(67)
- Evaluation of maize germplasm resistance to southern corn rust in Jiangsu Province ..... *Ren Chunmei, et al*(72)
- Effect of leaf picking on cassava yield and analysis of potato leaf feeding quality under cadmium stress  
..... *Zhao Xinlin, et al*(76)
- Impacts of climate warming on dry matter accumulation and transportation in rice ..... *Su Haibao, et al*(81)
- Influences of sowing date on yield and yield structure of japonica rice in southern Henan ..... *Duan Bin, et al*(86)
- Application effect of 0.02% iron chlorin soluble powder in tobacco ..... *Xing Yujun, et al*(91)

### Plant Protection

- Virtual screening of HPPD lead compounds from natural products based on molecular docking ..... *Liu Xuegui, et al*(95)
- Study on control efficacy of several fungicides on mango anthracnose by semi – fruit inoculation method  
..... *Zhang Junyou, et al*(102)
- Isolation and identification of pathogen of jujube black spot based on high – throughput sequencing technology  
..... *Liu Xiaoqin, et al*(108)
- Identification and indoor fungicides screening of causative pathogen of *Trichosanthes* fruit decay in Jiangsu Province  
..... *Sun Kai, et al*(112)

### Horticulture and Forestry

- Characteristics of annual ring width change of *Populus euphratica* in different habitats in Urho District  
..... *Zhao Jiajia, et al*(117)
- Analysis and evaluation of agronomic traits of *Asparagi radix* germplasms in Guangxi area ..... *Wan Lingyun, et al*(124)
- Comparison of multi – quality indices of different varieties of *Dendrobium officinale* in imitated wild cultivation  
..... *Yang Zhen, et al*(128)
- Effects of soybean and corn intercropping on soil nutrients in yong tea garden ..... *Xing Yao, et al*(132)
- Analysis of phenological changes of apple in florescence and its climate impact factors in Fushan District from 1994 to 2015  
..... *Chen Xingyu, et al*(135)
- Study on flower bud differentiation process and major physiological indices changes of *Anthurium andraeanum*  
..... *Li Xin, et al*(140)
- Kinetic model of *Pleurotus eryngii* cultivation by solid state fermentation with burdock peel ..... *Yao Fengteng, et al*(144)
- Metabolomics difference analysis of blueberry fruit development based on UPLC – QTOF/MS ..... *Wang Qian, et al*(148)
- Changes of main physiological indices during petal senescence of *Iris germanica* L. .... *Wang Yinjie, et al*(153)

Husbandry and Veterinary • Aquaculture and Sericulture

Isolation,identification and drug resistance analysis of *Aeromonas* from aquatic animals in Jiangsu Province in 2017 and 2018  
..... Wu Yafeng,et al(156)

Physicochemical properties and antigenicity analysis of adherent protein AP33 from *Trichomonas gallinae* and its cell epitope  
prediction ..... Chen Wenjie,et al(163)

Symptoms and pathogen identification of acute gill rot disease of carp in Zhengzhou carp farm ..... Wu Lingmei,et al(167)

Remediation effect of forage plants on bottom mud of *Penaeus vannamei* culture pond ..... Liu Lizao,et al(173)

Analysis of jejunum microbial diversity of Muchuan black bone chicken by Illumina MiSeq sequencing platform  
..... Liao Juan,et al(178)

Storage and Processing • Detection

Extraction technology and structural properties of melanin from Chinese soft – shelled turtle (*Pelodiscus sinensis*)  
..... Chen Xiaoyao,et al(182)

Effects of different color – preserving agents on color of lotus embossing ..... Zhuang Yuan,et al(189)

Inhibitory effect of botanical antibacterial substance cinnamaldehyde on *Listeria monocytogenes* ..... Wang Fan,et al(194)

Analysis of aromatic components in flowers and leaves of four chrysanthemum varieties by HS – SPME/GC – MS  
..... Guo Shuang,et al(198)

Relationship between fruit quality and mineral nutrients contents in peel and pulp of Bingtang sweet orange in Yunnan Province  
..... Cun Daize,et al(207)

Study on determination method of total nitrogen in rice by AA3 continuous flow analytical system ..... Wang Xue(215)

Agricultural Engineering and Information Technology

Quantitative inversion of soil organic matter and total nitrogen content based on differential transformation  
..... Gao Ying,et al(220)

Simulation and analysis of flow field in cotton conveying channel of cotton picker ..... Peng Zhen,et al(226)

Comparison of wind and snow load of greenhouse structures among the codes of China,Europe and the Netherlands  
..... Li Yizhe,et al(232)

Resources and Environment

Study on temporal variation and natural driving force of fractional vegetation cover in Wenchuan County, Sichuan Province  
..... Pan Huijiao,et al(239)

Effects of bio – organic fertilizer on phenolic acids and bacterial community structure in rhizosphere soil of tobacco  
..... Yang Min,et al(244)

Study on LID ecological measures of lateral canal corridors in Dujiangyan irrigated area based on water quality protection of  
irrigation canal ..... Lin Ziqi,et al(252)

Temporal and spatial changes of national green space form based on MSPA ..... Wei Xiaojian,et al(260)

Prediction of soil organic matter content in county based on auxiliary variables ..... Yin Qun,et al(267)

Study on implementation evaluation and conflict coordination of current spatial planning—Taking Feng County of Jiangsu  
Province as an example ..... Zhao Xin,et al(274)

Spatiotemporal coupling relationship between land development intensity and resources and environment bearing capacity  
of the Yangtze River urban agglomeration ..... Yang Zhuangzhuang,et al(280)

Study on land use changes and ecological effects in Yan'an City ..... He Bingyan,et al(286)

Agricultural Economy and Management

Evaluation of production efficiency in China’s major corn producing areas: based on DEA cross – efficiency model  
..... Li Wen,et al(293)

Study on consumers’ corporate social responsibility perception,attitude and purchase intention of genetically modified food  
..... Cui Ningbo,et al(298)

Performance evaluation of modern agricultural industry demonstration parks in Jiangsu Province based on three – stage DEA  
model and BWM method ..... He Shengnan,et al(306)

Influence of internet on farmers’ organized management and its improvement path—Based on empirical study of specialized  
agricultural cooperatives in Jiangsu Province ..... Wang Ying,et al(312)

Development status and countermeasures of new type cooperative farm—Taking Nantong City as an example  
..... Yuan Ji,et al(320)

Study on willingness of agricultural higher vocational colleges to improve farmer training quality based on planned behavior  
theory ..... Wang Jin,et al(324)