

# 江苏农业科学

第 48 卷 第 18 期 2020 年 9 月 20 日

## 目 次

### ●“乡村振兴”专栏

我国农业绿色发展现状与典型模式——基于第 1 批国家农业绿色发展试点先行区的数据

..... 罗 娟,姚宗路,孟海波,等(1)

基于三阶段 DEA 模型的乡村生态宜居建设效率研究 ..... 马巧云,郭柯楠(6)

基于空间计量模型的江苏省财政支出农村减贫效应实证分析 ..... 杨 浩,朱冬元,纪 磊(13)

乡村振兴视阈下扬州特色文旅村镇建设——以大运河扬州段为例 ..... 朱 莹,李 薇(19)

### ●专论与综述

缓控释肥的发展应用与评价体系研究进展 ..... 马 泉,王亚华,王梦尧,等(24)

耕地土壤重金属污染钝化修复技术研究进展 ..... 谢玉峰,刘 迪,陈振宁,等(30)

动物胆汁及胆汁酸的合成、测定及药理作用的研究进展 ..... 王 鑫,陈 晓,时海波,等(36)

植物 NAC 转录因子的结构及功能研究进展 ..... 荣 欢,任师杰,汪梓坪,等(44)

空间植物培养发展现状及其在现代阳台农业中的应用 ..... 赵小强,鹿金颖,陈 瑜,等(54)

### ●生物技术

稻瘟病菌细胞周期控制蛋白的生物信息学分析 ..... 方淑梅,侯 雪,邱凯华,等(60)

番茄 *Mi-1* 基因调控元件及同源基因进化分析 ..... 刘子记,刘维侠,牛 玉,等(66)

药用植物草珊瑚快速繁殖体系的建立 ..... 李林轩,梁 莹,覃 犇,等(72)

多重实时荧光 PCR 快速检测转基因大豆 ..... 石盼盼,谢文佳,刘 燕,等(77)

猪乙型脑炎病毒 SYBR - Green I 实时荧光定量 PCR 方法的建立 ..... 常 晨,张道华,唐 波,等(81)

重组菌丝霉素在毕赤酵母中的分泌表达及活性研究 ..... 邓赣奇,陈柏东,黄增颖,等(86)

### ●遗传育种与耕作栽培

花期高温对不同夏玉米品种花粉活力和产量的影响 ..... 贾良良,黄少辉,刘学彤,等(92)

稻草基质育秧不同烯效唑处理对水稻秧苗生理活性及栽后生长的影响 ..... 廖 莎,谭雪明,李木英,等(96)

辽西地区酿造高粱品种产量与主要性状的灰色关联度分析 ..... 赵术伟(102)

玉米灌浆期干旱胁迫对产量性状及生理生化的影响 ..... 李 娇,韩 鹏,穆云森,等(107)

荞麦生产技术规程 ..... 蒋 莹,常庆涛,王全友,等(111)

### ●植物保护

补骨脂种子提取物与丙硫菌唑复配对桃褐腐病菌的增效作用 ..... 王晓琳,孙伟波,李朝辉,等(114)

黑龙江省白菜田赤眼蜂的采集与鉴定 ..... 刘 岩,张树权,陈 思,等(119)

10% 啉啉草酯水乳剂的研制 ..... 张贵森,高海霞,刘 浪,等(123)

稻曲病菌致病力分化与接种处理条件优化 ..... 徐 晗,闫 晗,褚 晋,等(128)

### ●园艺与林学

遵义师院校园冬季绿色植物非结构性碳水化合物初探 ..... 张宝成,王连华,李应禄,等(132)

不同白黄化茶树品种的香茶适制性研究 ..... 郑生宏,柴红玲,邵静娜,等(136)

不同类型果袋对“阳光玫瑰”葡萄果实品质和经济效益的影响 ..... 庞一波,侯金祥,陈 剑,等(140)

不同补光时长对草莓开花及产量品质的影响 ..... 岳高峰,王丽萍,韩志强(144)

城市公园绿地可达性对居民公共健康的影响 ..... 章陆杨,何 侃,林 涛,等(148)

苏南地区猕猴桃遮阴栽培及品质表现 ..... 阎永齐,陈 成,杨 勇(154)

景天科多肉植物叶插繁殖效果 ..... 陈艺荃,魏云华,潘 宏(157)

不同基因型大葱假茎紧实度差异比较 ..... 苗锦山,潘淑颖,肖万里,等(162)

湘西喀斯特地区人工林树种的生长规律及生产力 ..... 刘立玲,朱宁华(165)

●畜牧兽医与水产蚕桑

蝉花多糖对三黄鸡雏鸡生长性能、肉品质和免疫效果的影响 ..... 刘素贞,王秋霞,李瑞萍,等(171)

湘西北某规模化猪场母猪子宫内膜炎金黄色葡萄球菌的分离鉴定及耐药性分析  
..... 李淑红,吴梦婷,彭 敬,等(175)

鸽新城疫灭活疫苗效力评价中实验鸽的筛选 ..... 刘云迎,刁小龙,陈 坚,等(177)

不同气象条件对克氏原螯虾存活和生长的影响 ..... 肖玮钰,刘可群,王 涵,等(181)

●贮藏加工与检测分析

蓝莓采后病原真菌的分离鉴定及抑制研究 ..... 葛达娥,图尔荪阿依·图尔贡,魏照辉,等(187)

青冈树韧皮部木质部显微构造的比较 ..... 赵阅书,薛晓明,王艺蓉(192)

纤维素粒径对胶原纤维膜性能的影响 ..... 田海龙,高 颖,邢振雷,等(198)

玫瑰红景天粗脂肪的成分及其性质分析 ..... 田光辉,庞海霞,刘存芳,等(205)

益生菌抗热牛蒡复合保护剂筛选优化研究 ..... 崔 莉,潘 超,张晓晓,等(211)

乳酸菌发酵黑莓汁增加胞外多糖工艺初探 ..... 戴意强,单成俊,刘小莉,等(214)

小麦秸秆木醋液成分及抑菌效果研究 ..... 张利亚,刘 霞,张 佩(219)

●农业工程与信息技术

一种基于网格的高标准基本农田保护区空间定位——以江苏省扬州市为例  
..... 吴彦澎,李 昀,李 潇(223)

运用 Sentinel-1A 时序数据和动态时间规整算法提取稻虾田空间分布信息  
..... 卢泽如,熊勤学,周雨顺,等(230)

基于机器视觉和卷积神经网络的东北寒地玉米害虫识别方法 ..... 陈 峰,谷俊涛,李玉磊,等(237)

基于综合指标的冬小麦长势监测 ..... 翟丽婷,魏峰远,冯海宽,等(244)

●资源与环境

湛江市土地利用效率及其分异特征 ..... 陈士银,马智宇(250)

武汉市园林土壤理化性状的空间分布规律 ..... 王 朴,康凯丽,金 晶,等(256)

解淀粉芽孢杆菌 TF28 不同施用方式对棚室连作黄瓜根际土壤细菌多样性的影响  
..... 胡基华,李 晶,曹 旭,等(262)

基于主成分分析法的县级耕地质量定级研究 ..... 郭利刚,武文婷(269)

1961—2017 年内蒙古霜冻时空分布特征及演变趋势 ..... 王惠贞,李 丹,吴瑞芬,等(274)

连续多季施用猪粪有机肥对设施大棚中土壤及作物中 Cu、Zn 含量的影响  
..... 郭德杰,刘新红,徐丽萍,等(283)

气候变化背景下石羊河下游径流特征 ..... 李兴宇,丁文魁,蒋菊芳,等(286)

干旱区城市森林大气颗粒物浓度变化特征及其与环境因子的关系  
..... 李惠玲,何秉宇,玉米提·哈力克,等(294)

不同理化调控措施缓解麦秸对水稻生长负面效应 ..... 赵亚慧,贺 笑,王 宁,等(300)

●农业经济与管理

水稻生产主体效率分析——基于黑龙江省牡丹江市的调查 ..... 马凤才,郭喜伟(306)

农民住房财产权抵押贷款意愿影响因素——以安徽省试点地区为例 ..... 张艳婷(316)

我国生猪调控政策对猪肉价格波动的影响 ..... 王长琴,周 德(322)

家庭农场生态补偿机制探索 ..... 张 强(328)

# JIANGSU AGRICULTURAL SCIENCES

Vol. 48 No. 18 September 20 2020

## CONTENTS

### Rural Revitalization

- Current situation and typical model of China's agricultural green development—Based on data from the first national agricultural green development pilot zones ..... *Luo Juan, et al*(1)
- Study on rural ecological livability construction efficiency based on three – stage DEA model ..... *Ma Qiaoyun, et al*(6)
- Empirical analysis of rural poverty alleviation effect of financial expenditure in Jiangsu Province based on spatial econometric model ..... *Yang Hao, et al*(13)
- Construction of characteristic cultural tourism villages and towns in Yangzhou City from perspective of rural revitalization —Taking Yangzhou section of the Grand Canal as an example ..... *Zhu Ying, et al*(19)

### Monograph and Review

- Research progress on development, application and evaluation system of slow and controlled release fertilizer ..... *Ma Quan, et al*(24)
- Research progress on passivation remediation technology of heavy metal pollution in cultivated soil ..... *Xie Yufeng, et al*(30)
- Research progress on synthesis, determination and pharmacological effects of animal bile and bile acids ..... *Wang Xin, et al*(36)
- Research progress on structure and function of plant NAC transcription factors ..... *Rong Huan, et al*(44)
- Development situation of space plant cultivation and its application in modern balcony agriculture ..... *Zhao Xiaoqiang, et al*(54)

### Biotechnology

- Bioinformatic analysis of cell cycle control proteins in *Piricularia oryzae* ..... *Fang Shumei, et al*(60)
- Analysis of Mi – 1 gene regulating elements and homologous genes evolution in tomato ..... *Liu Ziji, et al*(66)
- Establishment of rapid propagation system of *Sarcandra glabra* ..... *Li Linxuan, et al*(72)
- Rapid detection of genetically modified soybeans by multiplex real – time fluorescence PCR ..... *Shi Panpan, et al*(77)
- Establishment of SYBR – Green I real – time quantitative PCR assay for detection of Japanese encephalitis virus ..... *Chang Chen, et al*(81)
- Study on secretory expression and activity of recombinant bacterin in *Pichia pastoris* ..... *Deng Ganqi, et al*(86)

### Genetics and Breeding • Tillage and Cultivation

- Effect of high temperature during flowering on pollen vigor and yield of different summer maize cultivars ..... *Jia Liangliang, et al*(92)
- Influences of different uniconazole treatments on physiological activities and growth of rice seedlings ..... *Liao Sha, et al*(96)
- Grey correlation analysis of main characters and yield of brewed sorghum cultivars in western Liaoning ..... *Zhao Shuwei*(102)
- Effects of drought stress on yield characters, physiological and biochemical characteristics in maize at the filling stage ..... *Li Jiao, et al*(107)
- Technical regulations for buckwheat production ..... *Jiang Ying, et al*(111)

### Plant Protection

- Synergistic effect of psoralen seed extract and prothioconazole on *Monilia fructigena* ..... *Wang Xiaolin, et al*(114)
- Collection and identification of *Trichogramma* in cabbage fields in Heilongjiang Province ..... *Liu Yan, et al*(119)
- Preparation of 10% pinoxaden emulsion in water ..... *Zhang Guisen, et al*(123)
- Study on pathogenic differentiation and inoculation condition optimization of *Ustilaginoidea virens* ..... *Xu Han, et al*(128)

### Horticulture and Forestry

- Preliminary study on non – structural carbohydrates of green plants in garden of Zunyi Normal College in winter ..... *Zhang Baocheng, et al*(132)
- Study on suitability of fragrant tea made from different albino tea varieties ..... *Zheng Shenghong, et al*(136)
- Effects of different types of covering pouch on fruit quality and economic benefit of Shine Muscat grape ..... *Pang Yibo, et al*(140)
- Influences of different light supplementary time on flowering, yield and quality of strawberry ..... *Yue Gaofeng, et al*(144)

Impact of urban park green space accessibility on public health of residents ..... Zhang Luyang, et al (148)

Shade cultivation and quality performance of kiwifruit in southern Jiangsu ..... Yan Yongqi, et al (154)

Leaf cutting propagation technology of Crassulaceae plants ..... Chen Yiquan, et al (157)

Comparative study on compactness of pseudo stems of Welsh onion (*Allium fistilium* L. ) with different genotypes  
..... Miao Jinshan, et al (162)

Growth law and productivity of tree species in artificial forests in karst areas of western Hunan ..... Liu Liling, et al (165)

**Husbandry and Veterinary • Aquaculture and Sericulture**

Effects of *Cordyceps sobolifera* polysaccharide on growth performance, meat quality and immune of yellow – feathered broilers  
..... Liu Suzhen, et al (171)

Isolation, identification and drug resistance analysis of *Staphylococcus aureus* from sows with endometritis in a large – scale  
pig farm in northwestern Hunan ..... Li Shuhong, et al (175)

Screening of experimental pigeons in efficacy evaluation of pigeon Newcastle disease inactivated vaccine  
..... Liu Yunying, et al (177)

Effects of different meteorological conditions on survival and growth of crayfish (*Procambarus clarkii*)  
..... Xiao Weiyu, et al (181)

**Storage and Processing • Detection**

Study on isolation, identification and inhibition of pathogenic fungi in postharvest blueberries ..... Ge Da’e, et al (187)

Comparison of microstructure of xylem and phloem of *Cyclobalanopsis glauca* ..... Zhao Yueshu, et al (192)

Effect of cellulose particle size on properties of collagen fiber films ..... Tian Hailong, et al (198)

Analysis of chemical constituents and properties of crude fat in *Rhodiola rosea* ..... Tian Guanghui, et al (205)

Screening and optimization of probiotics anti – heat and burdock complex protective agents ..... Cui Li, et al (211)

Preliminary study on lactic acid bacteria fermentation of blackberry juice to increase exopolysaccharide  
..... Dai Yiqiang, et al (214)

Study on composition and antibacterial effect of wheat straw wood vinegar ..... Zhang Liya, et al (219)

**Agricultural Engineering and Information Technology**

A grid – based spatial positioning of high – standard basic farmland protection areas—Taking Yangzhou City of Jiangsu  
Province as an example ..... Wu Yanpeng, et al (223)

Extraction of spatial distribution information of rice and shrimp fields by Sentinel – 1A time series data and dynamic time  
warping algorithm ..... Lu Zeru, et al (230)

Recognition method of corn pests in northeast cold region based on machine vision and convolutional neural network  
..... Chen Feng, et al (237)

Winter wheat growth monitoring based on comprehensive indicators ..... Zhai Liting, et al (244)

**Resources and Environment**

Land use efficiency and its differentiation characteristics in Zhanjiang City ..... Chen Shiyin, et al (250)

Spatial distribution of landscape soil physical and chemical properties in Wuhan City ..... Wang Pu, et al (256)

Effects of different application methods of *Bacillus amyloliquefaciens* TF28 on bacterial diversity in rhizosphere soil of  
cucumber under continuous cropping in greenhouse ..... Hu Jihua, et al (262)

Study on grading of cultivated land quality at county level based on principal component analysis ..... Guo Ligang, et al (269)

Spatial and temporal distribution characteristics and evolution trend of frost days in Inner Mongolia from 1961 to 2017  
..... Wang Huizhen, et al (274)

Effects of continuous and multi season application of pig manure organic fertilizer on Cu and Zn contents in soil and crops in  
greenhouse ..... Guo Dejie, et al (283)

Runoff characteristics in the lower reaches of Shiyang River Basin under background of climate change  
..... Li Xingyu, et al (286)

Characteristics of atmospheric particulate concentrations in urban forests in arid areas and its relationship with environmental  
factors ..... Li Huiling, et al (294)

Different physical and chemical control measures alleviate the negative effects of wheat straw on rice growth  
..... Zhao Yahui, et al (300)

**Agricultural Economy and Management**

Analysis of production efficiency of different rice producers—Based on survey of rice producers in Mudanjiang City of  
Heilongjiang Province ..... Ma Fengcai, et al (306)

Factors influencing farmers’ willingness to mortgage their housing property rights—Taking Anhui Province as an example  
..... Zhang Yanting (316)

Impact of China’s hog intervention policies on pork price fluctuation ..... Wang Changqin, et al (322)

Exploration on ecological compensation mechanism of family farm ..... Zhang Qiang, et al (328)