

江苏农业科学

第 48 卷 第 4 期 2020 年 2 月 20 日

目 次

● 专论与综述

- 氮素在植物中的利用综述 白文钦, 胡明瑜, 王春萍, 等(1)
小麦赤霉病生物防治研究进展 陈文华, 殷宪超, 武德亮, 等(12)
植物逆境相关长链非编码 RNA 的研究进展 郑佳秋, 吴永成, 王薇薇, 等(19)
基于 CiteSpace 可视化的锑污染研究进展 翟全德, 张瑞雪, 吴 攀, 等(23)
邻苯二甲酸酯类化合物免疫检测技术研究进展 崔 银, 李 明, 杜道林(33)
三七的种植及采收加工现状 阙祖亮, 庞丹清, 陈 勇, 等(41)
农耕机械触土部分磨损及表面改性研究现状 夏国峰, 杨学锋, 万 壮, 等(46)
基于 CiteSpace 的耕地质量内涵演变及影响因素研究进展 李子琳, 李 婕, 郭 熙, 等(52)

● 生物技术

- 甘蓝型油菜脂肪酶基因 *BnGLIP1* 的克隆与分析 李 明, 丁丽娜, 王 政, 等(59)
16 种微生物蛋白酶的生物信息学分析 富玉竹, 李 欣, 李 眯, 等(65)
重组酶聚合酶扩增技术(RPA)检测创伤弧菌 凌 莉, 席 静, 王 莹, 等(73)

● 遗传育种与耕作栽培

- 滴灌春小麦根系形态特征对氮素胁迫的响应 李春红, 祁静玉, 王荣荣, 等(77)
不同缓释肥料对再生稻生长及产量的影响 焦卫平, 李同花, 任先顺, 等(84)
混合盐碱胁迫对藜麦苗期植株及根系生长特征的影响 修 好, 梁晓艳, 石瑞常, 等(89)
不同棱型、不同株高大麦品种混种的增产效应 赵加涛, 刘猛道, 杨向红, 等(95)
翻压绿肥对黑龙江烟草田间生长状态的影响 王 吴, 贺国强, 王树声, 等(99)

● 植物保护

- 外来植物南美蟛蜞菊对模拟盐胁迫的响应 张 彬, 何伟杰, 周羽新, 等(105)
助剂安融乐对 2 种不同剂型草铵膦除草剂的增效作用 张瑞萍, 相世刚, 刘 琪, 等(111)
上海地区草莓枯萎病病菌的鉴定及对 4 类杀菌剂的敏感性 许 媛, 成 玮, 颜伟中, 等(115)
新疆农牧区拟蛹螺属 2 种蜗牛形态特征和分子数据的比较研究 杨吕娟, 张子俊, 张卫红(121)

● 园艺与林学

- 红阳猕猴桃果实生长发育及主要营养物质动态变化 叶开玉, 莫权辉, 蒋桥生, 等(127)
干旱胁迫对蓝莓叶片生理特征的影响 杨海燕, 吴文龙, 阎连飞(131)
不同光质及其组合对山黧豆苗菜生长及品质的影响 许建民, 仇学文, 解振强, 等(134)
嫁接对辣椒生长及生理指标的影响 郭小山, 顾 妍, 孙 敏, 等(139)
播种量及方法对夏季反季节金坛无节水芹生长的影响 嵇伟彬, 何琳华, 蒋仁奎, 等(142)

盐胁迫对茅苍术叶绿素含量及叶绿素荧光参数的影响 孙云飞, 张文明, 巢建国, 等(146)

● 畜牧兽医与水产蚕桑

呕吐毒素对小鼠 T 淋巴细胞体外活化及相应活化标志分子的影响 刘双双, 孙 凯, 蔡国栋, 等(150)

不同能量水平对燕山绒山羊母羔生产性能的影响 李月彩, 段春辉, 周玲莉, 等(156)

健宫散治疗奶牛产后子宫炎对血清白介素含量的影响 张保军, 乔彦杰, 刘贤侠, 等(160)

大渡河重口裂腹鱼胚胎发育初步研究 何兴恒, 谭 刚(164)

嗜水气单胞菌灭活疫苗对鲫鱼免疫效果 祁仲石, 厉成新, 王中清, 等(168)

● 贮藏加工与检测分析

代谢抑制剂与 P450s 抑制剂对上海青吸收噻虫嗪的影响 李易芯, 万 群, 徐文君, 等(172)

氟虫腈在中华绒螯蟹中的残留效应 陈 曦, 张 聪, 宋 超, 等(176)

多壁碳纳米管净化 - 超高效液相色谱串联质谱法测定香蕉中 8 种新烟碱类杀虫剂

..... 乐 渊, 邓正敏, 刘春华, 等(181)

有机磷水解酶对甲基对硫磷的快速降解及检测 白俊岩, 高漫漫, 孙 磊, 等(186)

牡丹种皮乙酸乙酯提取物抗癌活性研究 张芳娟, 牛颜冰, 申少斐(192)

基于质量差异的翠碧 1 号烟叶分切研究及应用 李少鹏, 胡宗玉, 张天兵, 等(197)

● 农业工程与信息技术

基于变论域方法的拖拉机电液转向系统控制研究 李忠利, 乔冬冬, 邹会勉(203)

基于 ECLDeeplab 模型提取华北地区耕地的方法 魏青迪, 范 昊, 张承明(209)

基于双目立体视觉的草坪植株高度测量 余银海, 王新彦(215)

基于内循环除湿的密集烤房烘烤控制系统 田勇军, 黄采伦, 张 念, 等(222)

基于红外传感器的实蝇类害虫实时监测装置的设计 梁 勇, 赵 健, 林营志, 等(230)

水田打浆机水平控制器设计与试验 张 震, 瞿克江, 王 冬, 等(235)

● 资源与环境

高分辨率遥感影像在土地整治项目可研阶段的应用 耿黎娜, 朱兰艳, 徐 燕, 等(240)

典型蔬菜基地土壤重金属健康风险评价 曹 冉, 孜比布拉·司马义, 杨胜天, 等(246)

基于 CLUE-S 模型的土地利用空间格局情景模拟——以忻州市忻府区为例 朱小林, 郭青霞(254)

基于 ETM 影像的森林覆盖率统计分析——以林芝市巴宜区为例 尹惠妍, 张志伟, 杨小林, 等(260)

农田土壤重金属污染特征、生态风险评价与来源分析 张云菲, 孜比布拉·司马义, 杨胜天, 等(266)

1 株氟环唑降解菌的分离鉴定及降解特性 申志慧, 王 亚, 李昊聪, 等(273)

1 株热带海洋光合细菌的筛选、鉴定及水质净化能力 张秀霞, 王冬梅, 李军涛, 等(278)

鸟粪石结晶法回收高浓度酸性含磷废水中磷的研究 王 松, 谢洪勇(282)

● 农业经济与管理

河南省设施农业发展潜力评价与布局优化 肖慧敏, 王秀丽, 李 玲, 等(286)

基于 BP 神经网络、ARIMA 和 LS-SVM 模型的集成预测研究——1978—2017 年陕西省苹果产量实证

..... 李鹏飞, 王青青, 毋建宏, 等(294)

基于重点实验室建设管理的农业科研院所学科发展探讨——以江苏省农业生物学重点实验室为例

..... 许 玲, 陈虞雯, 魏伶俐, 等(301)

陕西省农民专业合作社农业技术应用现状及对策 杨天荣, 李建斌(305)

地区差异、受教育程度对农民参加养老保险行为的影响 赵丽娟(310)

JIANGSU AGRICULTURAL SCIENCES

Vol. 48 No. 4 February 20 2020

CONTENTS

Monograph and Review

Utilization of nitrogen in plants: a review	Bai Wenqin, et al(1)
Research progress on biological control of fusarium head blight	Chen Wenhua, et al(12)
Research progress on plant stress – related long non – coding RNA	Zheng Jiaqiu, et al(19)
Research progress of antimony pollution based on CiteSpace visualization	Zhai Quande, et al(23)
Research progress on immunoassays for phthalic acid esters	Cui Yin, et al(33)
Planting, harvesting and processing status of <i>Panax notoginseng</i>	Que Zuliang, et al(41)
Research status of abrasion and surface modification of soil – contacting part of farming machinery	Xia Guofeng, et al(46)
Research progress on connotation evolution and influencing factors of cultivated land quality based on CiteSpace	Li Zilin, et al(52)

Bio-technology

Cloning and expression analysis of lipase gene <i>BnGLIP1</i> in <i>Brassica napus</i> L.	Li Ming, et al(59)
Bioinformatics analysis of sixteen microbial proteases	Fu Yuzhu, et al(65)
Detection of <i>Vibrio vulnificus</i> <i>gryB</i> gene by recombinase polymerase amplification	Ling Li, et al(73)

Genetics and Breeding · Tillage and Cultivation

Response of root morphological characteristics of spring wheat to nitrogen stress under drip irrigation ...	Li Chunhong, et al(77)
Effects of different slow – release fertilizers on growth and yield of ratooning rice	Jiao Weiping, et al(84)
Effects of complex salt – alkali stresses on the plant and root growth of <i>Chenopodium quinoa</i>	Xiu Yu, et al(89)
Yield – increasing effects of mixed seeds of barley cultivars with different edge types and plant heights	Zhao Jiatao, et al(95)

Effect of turn – over green manures on field growth of tobacco in Heilongjiang Province	Wang Hao, et al(99)
---	---------------------

Plant Protection

Responses of alien plant <i>Wedelia trilobata</i> to simulated salt stress	Zhang Bin, et al(105)
Synergistic effects of an adjuvant AnnGro on two different glufosinate – ammonium herbicides	Zhang Ruiping, et al(111)
Identification of <i>Fusarium oxysporum</i> of strawberry in Shanghai City and its sensitivity to four fungicides	Xu Yuan, et al(115)

Comparative study on morphological characteristics and molecular data of two species of <i>Pseudonapaeus</i> in Xinjiang agricultural and pastoral areas	Yang Lyujuan, et al(121)
--	--------------------------

Horticulture and Forestry

Growth and dynamic changes of main nutrients in Hongyang kiwifruit fruits	Ye Kaiyu, et al(127)
Effects of drought stress on physiological characteristics of blueberry leaves	Yang Haiyan, et al(131)
Influences of different light qualities and their combinations on growth and quality of <i>Lathyrus sativus</i> L. sprouts	Xu Jianmin, et al(134)

Impact of grafting on growth and physiological indicators of pepper	Guo Xiaoshan, et al(139)
Effects of seeding rate and method on growth of water dropwort in Jintan area in summer	Ji Weibin, et al(142)
Impacts of salt stress on chlorophyll contents and chlorophyll fluorescence parameters of <i>Atractylodes lancea</i>	Sun Yunfei, et al(146)

Husbandry and Veterinary · Aquaculture and Sericulture

Effects of deoxynivalenol on activation and relative activation markers of mice T lymphocytes <i>in vitro</i>	Liu Shuangshuang, et al(150)
---	------------------------------

Influence of different energy level on production performance of female lambs of Yanshan cashmere goats	Li Yuecai, et al (156)
Effects of Jiangong Powder on serum interleukin contents in dairy cows with postpartum uteritis	Zhang Baojun, et al (160)
Preliminary study on embryonic development of <i>Schizothorax davidi</i> Sauvage in Dadu River	He Xingheng, et al (164)
Immune effect of <i>Aeromonas hydrophila</i> inactivated vaccine on crucian carps	Ji Zhongshi, et al (168)

Storage and Processing · Detection

Effects of metabolic inhibitors and P450s inhibitors on thiamethoxazine absorption by <i>Brassica chinensis</i> L.	Li Yixin, et al (172)
Residual of fipronil in <i>Eriocheir sinensis</i>	Chen Xi, et al (176)
Determination of eight neonicotinoid insecticides residues in banana using ultra – performance liquid chromatography – tandem mass spectrometry coupled with multiwalled carbon nanotubes purification	Le Yuan, et al (181)

Rapid degradation and detection of methyl parathion by organophosphorus hydrolase	Bai Junyan, et al (186)
Anti – cancer cell activity of ethyl acetate extract from peony seed coats	Zhang Fangjuan, et al (192)
Study and application of leaf cutting based on quality difference of CB – 1 tobacco leaves	Li Shaopeng, et al (197)

Agricultural Engineering and Information Technology

Study on control of tractor electro – hydraulic steering system based on variable universe method	Li Zhongli, et al (203)
A method for extracting cultivated land in North China based on ECLDeeplab model	Wei Qingdi, et al (209)
Turf plant height measurement based on binocular stereo vision	She Yinhai, et al (215)
Baking control system of bulk curing barn based on internal circulation dehumidification	Tian Yongjun, et al (222)
Design of a real – time monitoring device for fruit fly pests based on infrared sensors	Liang Yong, et al (230)
Design and test of level controller of paddy field beater	Zhang Zhen, et al (235)

Resources and Environment

Application of high resolution remote sensing image in feasibility study stage of land remediation project	Geng Lina, et al (240)
Health risk assessment of heavy metals in typical vegetable base soils	Cao Ran, et al (246)
Study on scenario simulation of land use spatial pattern based on CLUE – S model—Taking Xinfu District, Xinzhou City as an example	Zhu Xiaolin, et al (254)
Statistical analysis of forest coverage rate based on different remote sensing images—Taking Bayi District, Nyingchi City as an example	Yin Huiyan, et al (260)
Pollution characteristics, ecological risk assessment and source analysis of heavy metal in farmland soils	Zhang Yunfei, et al (266)
Isolation, identification and degrading characterization of an epoxiconazole – degrading bacterium	Shen Zhihui, et al (273)
Screening, identification and water purification ability of a photosynthetic bacteria from tropical ocean	Zhang Xiuxia, et al (278)
Study on recovery of phosphorus from high – concentration acidic phosphorous wastewater by struvite crystallization	Wang Song, et al (282)

Agricultural Economy and Management

Evaluation and optimization of facility agriculture development potential in Henan Province	Xu Huimin, et al (286)
Study on integrated prediction based on BP neural network, ARIMA and LS – SVM model—An empirical study of apple production in Shaanxi Province from 1978 to 2017	Li Pengfei, et al (294)
Discussions on development of subjects in agricultural research institutes based on construction and management of key laboratories—Taking Jiangsu Key Laboratory of Agrobiology as an example	Xu Ling, et al (301)
Application situation of agricultural technology in farmers' specialized cooperatives in Shaanxi Province and the countermeasures	Yang Tianrong, et al (305)
Impacts of regional differences and educational levels on farmers' participation in endowment insurance	Zhao Lijuan (310)