

江苏农业科学

第 50 卷 第 12 期 2022 年 6 月 20 日

目 次

● 专论与综述

- bHLH 转录因子在植物抗非生物胁迫基因工程中的应用进展 李君霞,樊永强,代书桃,等(1)
- 猪粪还田对黄淮海地区农业生产影响的研究进展及对策建议 陈广银,吴 佩,董金竹,等(10)
- 美国薄壳山核桃细菌性叶枯病研究进展 曹 凡,王 莹,郭 聪,等(18)
- CRISPR/Cas9 基因编辑技术在植物病原真菌中的应用研究进展 夏雄飞,潘俊良,韩长志(22)
- 马铃薯黑痣病立枯丝核菌及其综合防控研究进展 夏善勇,牛志敏,李庆全,等(28)

● 生物技术

- 猎蝽科昆虫线粒体基因组的比较研究 赵婉清,李 巧,李 莹,等(34)
- 1 株溶血性杆菌的分离鉴定与基因组分析 王茜月,管飘萍,陈诗涵,等(42)

● 遗传育种与耕作栽培

- 砷胁迫下纳米硫对油菜幼苗生长、砷积累及土壤砷形态的影响 符佳豪,范少茹,庄秋荣,等(51)
- 稻虾共作对不同优质食味水稻品种产量及品质的影响 张明伟,陈京都,唐建鹏,等(59)
- 减量施用氮肥对玉米光合参数、产量与品质的影响 阎世江,房雅丽,卢占龙,等(64)
- 赤霉素及其抑制剂对油菜抗倒伏性的影响 韦丁一,高少凡,苏海英,等(69)
- 不同磷素用量对玉米氮磷钾养分分配及产量的影响 高文龙,崔 浩,冯木彩,等(75)
- 不同收获期玉米籽粒穿刺强度差异及其与破碎率的相关性分析 尚 赏,郭书亚,张 艳,等(81)
- 长江中下游麦区 100 个小麦品种发芽期耐盐性的鉴定与评价 余桂红,张 鹏,马鸿翔,等(87)
- 聚乙二醇和细胞穿膜肽介导提高玉米花粉管通道法转化效率 李向龙,张中保,张 春,等(91)
- 氮肥运筹对豫南小麦生理特性、品质和产量性状的影响 陈金平,朱保磊,石守设,等(95)

● 植物保护

- 不同除草剂与激健配套的抑草与促进玉米生长发育的效果 张世兰,逯 昀(100)
- 6 种杀菌剂对 2 种草莓炭疽病菌室内毒力测定 唐冬兰,唐 泉,蒋立奔,等(106)

绿色木霉菌株发酵液及分生孢子悬浮液对南方根结线虫二龄幼虫活性的影响	谈 韪,樊 航,张紫瑶,等(114)
臭氧水与生防菌剂组合应用对番茄根结线虫及根际微生物群落的影响	魏艳丽,李红梅,扈进冬,等(121)
●园艺与林学	
纳米硒、铜对于干旱胁迫下番茄生长、光合特性及产量的影响	陈绕生,薛林宝(127)
不同粒径的复混基质对辣椒育苗的影响	刘衍晨,金浩齐,李旭强,等(135)
条斑紫菜自由丝状体在不同光照度下的光能利用特征	陶菊红,侯彬彬,周 伟,等(145)
蓝光处理对夏菊优香组培苗生长发育的影响及其分子机制	刘 涛,程培蕾,赵坤坤,等(150)
重金属胁迫对不同种源任豆种子萌发及幼苗生长的影响	覃勇荣,赵贞涛,刘旭辉,等(156)
不同磷水平下 CO ₂ 浓度升高对番茄光合特性和抗氧化酶活性的影响	王 月,王鲁鑫,李浩天,等(163)
不同低温与肥水处理对蝴蝶兰生长及开花的影响	曲晓慧,张宁宁,刘 晨,等(168)
不同有机肥处理对番茄生长、产量及品质的影响	李佳璠,宋梦圆,许盟盟,等(173)
●畜牧兽医与水产蚕桑	
间混作豆科牧草对青贮玉米产量及氮肥利用的影响	彭滢茹,周 锋,何晓波,等(180)
基于性别连锁 SNP 特异性引物延伸反应的斑点叉尾鲷遗传性别鉴定方法的建立与应用	徐思琪,张世勇,陈校辉,等(189)
中华鳖鄱阳湖品系和黄沙鳖品系及其杂交后代形态性状对体重的影响	阙江龙,张燕萍,贺 刚,等(194)
●农业工程与信息技术	
基于 Micro – CT 的玉米自交系茎秆维管束表型高通量获取与精准解析	赵 欢,王璟璐,张 颖,等(201)
基于改进语义分割模型的无人机多光谱图像杂草分割	徐国钦,黄明凤,黄建平(212)
水敏纸图像预处理及农药液滴参数测量	亢 洁,刘 港,郭国法(220)
基于实例置信度推断的半监督小样本植物病害图像识别	孔江波,朱 贺,张延文,等(229)
●资源与环境	
不同生育期气候变化对河南省冬小麦产量影响的量化分析	李炳军,张一帆(238)
不同耕作方式对绿洲区农田土壤团聚体中微生物生物量碳、氮含量的影响	王翠丽,王军强,陈 亮,等(246)
灯盏花不同部位水浸提液对小麦和萝卜的化感效应	王田涛,关德军,周文忠,等(252)
内蒙古荒漠灌木内生解磷菌类群及其解磷和产铁载体能力分析	孟建宇,郭慧琴,贾丽娟,等(260)

JIANGSU AGRICULTURAL SCIENCES

Vol. 50 No. 12 June 20 2022

CONTENTS

Monograph and Review

- Application progress of bHLH transcription factors in genetic engineering of plants against abiotic stress
..... *Li Junxia, et al*(1)
- Research progress and countermeasures of impact of pig manure returning to field on agricultural production in
Huang – Huai – Hai region *Chen Guangyin, et al* (10)
- Research progress of American pecan bacterial leaf blight *Cao Fan, et al*(18)
- Research progress on application of CRISPR/Cas9 gene editing technology in plant pathogenic fungi
..... *Xia Xiongfei, et al*(22)
- Research progress on *Rhizoctonia solani* causing potato black spot disease and its comprehensive control
..... *Xia Shanyong, et al*(28)

Bio-technology

- Comparative study on mitochondrial genomes in Reduviidae *Zhao Wanqing, et al* (34)
- Isolation, identification and genome analysis of a strain of *Chromobacterium haemolyticum* *Wang Xiyue, et al*(42)

Genetics and Breeding · Tillage and Cultivation

- Effects of nano – sulfur on *Brassica napus* seedling growth, As accumulation and soil As speciation under As stress
..... *Fu Jiahao, et al*(51)
- Influences of rice – shrimp co – cultivation on yield and quality of different rice cultivars with good taste
..... *Zhang Mingwei, et al*(59)
- Impacts of reduced application of nitrogen fertilizer on photosynthetic parameters, yield and quality of maize
..... *Yan Shijiang, et al*(64)
- Effects of gibberellin and its inhibitors on lodging resistance of *Brassica napus* L. *Wei Dingyi, et al*(69)
- Impacts of different phosphorus amounts on nutrient distribution of nitrogen, phosphorus and potassium and yield of maize
..... *Gao Wenlong, et al*(75)
- Differences of corn kernel puncture strength in different harvest periods and its correlation with breakage rate
..... *Shang Shang, et al*(81)
- Identification and evaluation of salt tolerance during germination of 100 wheat cultivars from the middle and lower reaches
of the Yangtze River *Yu Guihong, et al*(87)
- Polyethylene – glycol and cell penetrating peptides mediate improvement of transformation efficiency of corn pollen tube
channel method *Li Xianglong, et al*(91)
- Influences of nitrogen fertilizer management on physiological characteristics, quality and yield of wheat in southern Henan
..... *Chen Jinping, et al*(95)

Plant Protection

- Effects of different herbicides combined with Jijian on weed inhibition and maize growth promotion
..... *Zhang Shilan, et al*(100)
- Indoor virulence determination of six kinds of fungicides against two strains of strawberry anthracnose
..... *Tang Donglan, et al*(106)

Effects of fermentation broth and conidial suspension of *Trichoderma viride* on activity of second – stage juveniles (J2) of *Meloidogyne incognita* Tan Yun,et al(114)

Impacts of combined application of ozonated water and microbial agents on tomato root – knot nematode and rhizosphere microbial community Wei Yanli,et al(121)

Horticulture and Forestry

Influences of selenium and copper nanoparticles on tomato growth,photosynthetic characteristics and yield under drought stress Chen Raosheng,et al(127)

Effects of compound substrates with different particle sizes on pepper seedling raising Liu Yanchen,et al(135)

Study on light energy utilization characteristics of free filaments of *Pyropia yezoensis* “Sutong 2” under different light intensities Tao Juhong,et al(145)

Effects of blue light treatment on growth of summer – flowering *Chrysanthemum* “Yuuka” tissue culture seedlings and its molecular mechanism Liu Tao,et al(150)

Impacts of heavy metal stress on seed germination and seedling growth of *Zenia insignis* from different provenances Qin Yongrong,et al(156)

Influences of elevated CO₂ concentration on photosynthetic characteristics and antioxidant enzyme activities of tomato seedlings under different phosphorus levels Wang Yue,et al(163)

Effects of different low temperature and fertilizer – water treatments on growth and flowering of *Phalaenopsis aphrodite* Qu Xiaohui,et al(168)

Influences of different organic fertilizer treatments on growth,yield and quality of tomato Li Jiafan,et al(173)

Husbandry and Veterinary · Aquaculture and Sericulture

Effect of mixed and intercropped with legumes on yield and nitrogen use efficiency of silage maize Peng Yanru,et al(180)

Establishment and application of a genetic sex identification method for channel catfish based on sex – linked SNP – specific primer extension reaction Xu Siqi,et al(189)

Mathematical analysis of effects of morphometric attributes on body weight of Poyang Lake strains,Huangsha strains and their hybrid in *Pelodiscus sinensis* Que Jianglong,et al(194)

Agricultural Engineering and Information Technology

High – throughput acquisition and accurate analysis of stem vascular bundle phenotypes in maize inbred lines based on Micro – CT Zhao Huan,et al(201)

Segmentation of UAV multispectral weed image based on improved semantic segmentation model Xu Guoqin,et al(212)

Image preprocessing and pesticide droplet parameter measurement of water – sensitive paper Kang Jie,et al(220)

Semi – supervised few – shot plant disease image recognition based on instance credibility inference Kong Jiangbo,et al(229)

Resources and Environment

Quantitative analysis of impact of climate change at different growth stages on winter wheat yield in Henan Province Li Bingjun,et al(238)

Effects of different cultivation methods on microbial biomass carbon and nitrogen contents in soil aggregates in Oasis area Wang Cuili,et al(246)

Allelopathy of aqueous extracts from different parts of *Erigeron breviscapus* on *Triticum aestivum* and *Raphanus sativus* Wang Tiantao,et al(252)

Study on endophytic phosphorus – solubilizing bacteria community of desert shrubs in Inner Mongolia and their phosphorus – solubilizing and siderophore – producing capabilities Meng Jianyu,et al(260)