



Q K 2 0 1 8 6 0 5

ISSN 1008-0864

CN 11-3900/S

CODEN ZNKDAJ

中文核心期刊

中国科学引文数据库来源期刊

中国科技核心期刊

# 中国农业科技导报

Journal of  
Agricultural Science  
and Technology

2020年 第22卷 第 5 期

中华人民共和国科学技术部主管 中国农村技术开发中心主办

# 中国农业科技导报

第22卷 第5期 2020年5月

## 目 次

### 农业创新论坛

- 我国动物源细菌耐药性的研究进展及防控策略 ..... 孙康泰, 张建民, 蒋大伟, 王小龙, 葛毅强, 邓小明(1)  
高通量测序技术在转基因植物分子特征评价中的应用 ..... 马硕, 焦悦, 王旭静, 翟勇, 王志兴(6)

### 生物技术 生命科学

- 我国75份小麦品种SNP和SSR指纹图谱构建与比较分析 ..... 刘丽华, 刘阳娜, 张明明, 李宏博, 庞斌双, 赵昌平(15)  
温度和土壤酸度对八仙花‘Bailmer’生长发育的影响 ..... 杨锁宁, 张黎, 刘春, 袁素霞, 张军云, 张盖天(24)  
不同脉冲光对生菜生长、品质及光合特性的影响 ..... 卞孙涛, 王嘉萱, 辛鑫, 杨振超, 武勇军(35)  
鸟兰布和沙漠绿洲防护林杨树叶片性状研究 ..... 黄雅茹, 马迎宾, 郝玉光, 张家祺, 张建平, 李帅, 马媛, 张冉昊(42)  
采收成熟度对雪茄烟叶晾制过程酶促棕色化反应及品质的影响 ..... 赵松超, 田培, 刘博远, 李一凡, 赵铭钦(51)  
*Bispora* sp. MEY-1来源嗜酸果胶甲酯酶性质分析及其应用研究 ..... 王志云, 罗会颖, 姚斌, 徐波, 涂涛(60)

### 智慧农业 农机装备

- 臭氧技术及臭氧植保机械在农业中的应用 ..... 范鑫, 尚德林, 兰玉彬, 白京波, 韩鑫(71)  
叠片式啮合圆弧齿轮排肥器设计与仿真试验 ..... 顿国强, 于春玲, 郭艳玲, 杨永振, 叶金, 纪文义, 刘宇轩(78)  
基于高光谱成像技术的油菜叶片叶绿素含量预测 ..... 杨婧, 廖桂平, 刘凡, 官春云(86)  
电动生长锥结合Python树木年轮信息提取研究 ..... 常晨, 冯仲科, 马文苑(97)

### 动植物健康

- 钩状木霉在辣椒根际定殖动态及其对辣椒疫病的生物防治 ..... 赵兴丽, 陶刚, 娄璇, 顾金刚(106)  
北苍术枝枯病病原菌(*Fusarium equiseti*)的鉴定及其生物学特性研究 ..... 温晓蕾, 齐慧霞, 孙伟明, 刘一健, 冯丽娜, 孟童瑶, 韩志玲, 曹佳, 王俊凤(115)  
新疆库尔勒地区羊源产志贺毒素大肠杆菌及其耐药性分析 ..... 刘英玉, 朱明月, 苏晓月, 胥兰, 刘俊飞, 郑晓风, 张妍, 郑晓琴(122)

### 生物制造 资源生态

- 人工湿地在农村生活污水处理中的应用及研究进展 ..... 林卉, 姜忠群, 冒建华(129)  
磷硫配施对冬小麦硒吸收及转运的影响 ..... 张胜男, 聂兆君, 赵鹏, 李金峰, 李永革, 刘红恩, 秦晓明, 秦世玉(137)  
新型尿素对冬小麦产量及氮素吸收利用的影响 ..... 尹焕丽, 岳艳军, 常凤, 王海标, 苗玉红, 王宜伦(145)  
谷子花生间作对谷子光合特性及产量的影响 ..... 王钰云, 王宏富, 李智, 段宏凯, 黄珊珊(153)  
不同施肥模式对花生Ca、Zn吸收、积累及分配的影响 ..... 王飞, 王建国, 李林, 刘登望, 万书波, 张昊(166)  
不同钙磷配比及浓度对多花黑麦草生长特性的影响 ..... 徐彦红, 左意才, 席溢, 许钟丹, 李斌(174)  
生物炭对茶园酸性红壤氮素养分淋溶的影响 ..... 刘岑薇, 叶菁, 李艳春, 林怡, 王义祥(181)

征订启事 《中国农业科技导报》征订启事(封二) 《生物技术进展》征订启事(封三)

作者投稿指南(187)

# JOURNAL OF AGRICULTURAL SCIENCE AND TECHNOLOGY

Vol.22 No.5 May 2020

## CONTENTS

### AGRICULTURAL INNOVATION FORUM

- Progress and Countermeasures of Antimicrobial Resistance of Animal Origin Bacterial Pathogens in China ..... SUN Kangtai, ZHANG Jianmin, JIANG Dawei, WANG Xiaolong, GE Yiqiang, DENG Xiaoming(1)  
Genome Sequencing Application on Molecular Characterization Assessment of Transgenic Plant ..... MA Shuo, JIAO Yue, WANG Xujing, ZHAI Yong, WANG Zhixing(6)

### BIOTECHNOLOGY & LIFE SCIENCE

- Construction and Comparative Analysis of SNP and SSR Fingerprints of 75 Wheat Cultivars in China ..... LIU Lihua, LIU Yangna, ZHANG Mingming, LI Hongbo, PANG Binshuang, ZHAO Changping(15)  
Influences of Temperature and Soils Acidity on the Growth and Development of *Hydrangea macrophylla* 'Bailmer' ..... YANG Suoning, ZHANG Li, LIU Chun, YUAN Suxia, ZHANG Junyun, ZHANG Gaitian(24)  
Effects of Different Pulsed Light on Growth, Quality and Photosynthetic Characteristics of Lettuce ..... MOU Suntao, WANG Jiaxuan, XIN Xin, YANG Zhenchao, WU Yongjun(35)  
Study on Leaf Trait of Poplar in Protection Forest at Ulan Buh Desert Oasis ..... HUANG Yaru, MA Yingbin, HAO Yuguang, ZHANG Jiaqi, ZHANG Jianping, LI Shuai, MA Yuan, ZHANG Ranhao(42)  
Effects of Air Curing of Different Maturity on Enzymatic Browning and Quality of Cigar Tobacco Leaves ..... ZHAO Songchao, TIAN Pei, LIU Boyuan, LI Yifan, ZHAO Mingqin(51)  
Characterization of an Acidophilic Pectin Methyl esterase from *Bispora* sp. MEY-1 and Its Application in Recycling of Food Processing By-products ..... WANG Zhiyun, LUO Huiying, YAO Bin, XU Bo, TU Tao(60)

### INTELLIGENT AGRICULTURE & AGRICULTURAL MACHINERY

- Application of Ozone Technology and Ozone Plant Protection Devices in Agriculture ..... FAN Xin, SHANG Delin, LAN Yubin, BAI Jingbo, HAN Xin(71)  
Design and Simulation Test of Laminated-type Meshing Arc Gear Fertilizer Device ..... DUN Guoqiang, YU Chunling, GUO Yanling, YANG Yongzhen, YE Jin, JI Wenyi, LIU Yuxuan(78)  
Prediction of Chlorophyll Content of Rape Leaves with Hyperspectral Imaging Technology ..... YANG Jing, LIAO Guiiping, LIU Fan, GUAN Chunyun(86)  
Research on Extracting Tree Ring Information From Python by Electric Growth Cone ..... CHANG Chen, FENG Zhongke, MA Wenyuan(97)

### ANIMAL AND PLANT HEALTH

- Colonization Dynamics of *Trichoderma hamatum* in Pepper Rhizosphere and Its Biological Control Against Pepper *Phytophthora* Blight ..... ZHAO Xingli, TAO Gang, LOU Xuan, GU Jingang(106)  
Identification and Biological Characteristics of the Pathogen (*Fusarium equiseti*) Causing Shoot Blight of *Atractylodes chinensis* ..... WEN Xiaolei, QI Huixia, SUN Weiming, LIU Yijian, FENG Lina, MENG Tongyao, HAN Zhiling, CAO Jia, WANG Junfeng(115)  
Analysis of Drug Resistance and the Shiga Toxin-producing *Escherichia coli* in Sheep from Korla Region of Xinjiang ..... LIU Yingyu, ZHU Mingyue, SU Xiaoyue, XU Lan, LIU Junfei, ZHENG Xiaofeng, ZHANG Yan, ZHENG Xiaoqin(122)

### BIO-MANUFACTURING & RESOURCE AND ECOLOGY

- Application and Research of Constructed Wetlands in Rural Wastewater Treatment ..... LIN Hui, JIANG Zhongqun, MAO Jianhua(129)  
Impact of Phosphorus and Sulfur Combined Application on Selenium Uptake and Translocation in Winter Wheat ..... ZHANG Shengnan, NIE Zhaojun, ZHAO Peng, LI Jinfeng, LI Yongge, LIU Hongen, QIN Xiaoming, QIN Shiyu(137)  
Effects of New-type Urea on Yield, Nutrient Absorption and Utilization of Winter Wheat ..... YIN Huanli, YUE Yanjun, CHANG Feng, WANG Haibiao, MIAO Yuhong, WANG Yilun(145)  
Influences of Millet-Peanut Intercropping on Photosynthetic Characteristics and Yield of Millet ..... WANG Yuyun, WANG Hongfu, LI Zhi, DUAN Hongkai, HUANG Shanshan(153)  
Effects of Different Fertilization Methods on the Absorption, Accumulation and Distribution of Ca and Zn in Peanut ..... WANG Fei, WANG Jianguo, LI Lin, LIU Dengwang, WAN Shubo, ZHANG Hao(166)  
Influences of Different Ca/P Ratios and Concentrations on Growth Characteristics of *Lolium multiflorum* ..... XU Yanhong, ZUO Yicai, XI Yi, XU Zhongdan, LI Bin(174)  
Effects of Biochar on Soil Nitrogen Leaching in Acid Red Loam of Tea Garden ..... LIU Cenwei, YE Jing, LI Yanchun, LIN Yi, WANG Yixiang(181)

中文核心期刊

中国科学引文数据库（CSCD）来源期刊

中国科技核心期刊（中国科技论文统计源期刊）

中国核心期刊（遴选）数据库收录期刊

RCCSE中国核心学术期刊（A）

中国农业核心期刊

中国学术期刊综合评价数据库来源期刊

中国期刊网、《中国学术期刊（光盘版）》全文收录期刊

**Journal of  
Agricultural Science  
and Technology**

新浪微博  
中国农业科技导报

微信公众号  
nykjdb



ISSN 1008-0864



9 771008 086204