

中国土壤与肥料

ZHONGGUO TURANG YU FEILIAO

双月刊(1964 年创刊)

2019 年第 5 期(总第 283 期)

2019 年 10 月 10 日出版

主 编 徐明岗

副 主 编 卢昌艾

编 委 (以姓名笔画为序)

王 旭 王秋兵 石孝均

白由路 刘宝存 孙建光

李 俊 李晓林 杨俊诚

吴立忠 张甘霖 张旭东

林新坚 周建斌 郑海春

赵秉强 逢焕成 黄子蔚

黄鸿翔 曾思坚 谢良商

鲁剑巍 魏 丹

责任编辑 贾 硕

英文编辑 武淑霞

主办单位 中国农业科学院农业资源与农业
区划研究所

中国植物营养与肥料学会

编辑出版 《中国土壤与肥料》编辑部

地 址 北京中关村南大街 12 号

邮政编码 100081

网 址 <http://chinatrfl.alljournal.net.cn>

电子信箱 trfl@caas.cn

电 话 (010)82108656

传 真 (010)82106225

印 刷 北京科信印刷有限公司

发 行 北京市报刊发行局

订 阅 全国各地邮局

邮发代号 2-559

订 价 15.00 元

中国标准连续出版物号 ISSN 1673-6257
CN 11-5498/S

广告经营许可证 京海工商广字第 0082 号

目 次

· 专题综述 ·

堆肥用微生物及其效果研究进展…………… 蔡 瑞,徐春城(1)

· 研究报告 ·

马龙植烟土壤 pH 值分布特征及其主控因素研究……………

周子方,解 燕,易 克,王瑞宝,刘加红,何志明,杜 坚,李 强(8)

烟株生长过程中土壤微生物的变化特征……………

……林书震,李小龙,李红丽,詹义忠,芦阿度,田艳华,王 岩(14)

不同秸秆还田方式对土壤酶活性和玉米产量的影响……………

……刘玮斌,田文博,陈 龙,刘亚亮,于 寒,谷 岩(25)

三江平原草甸白浆土水田氮肥优化研究及应用——以前进农
场为例…………… 王秋菊,李鹏绯,刘 峰,焦 峰,姜 辉(30)

氮素水平对雾培马铃薯植株生长和产量的影响……………

……王克秀,唐铭霞,胡建军,汪翠存,刘可心,杨雯婷,何 卫(38)

花期短期低氮处理对黄瓜抗坏血酸及可溶性糖含量的影响…

……李云云,李 强,余宏军,蒋卫杰(46)

硫包衣尿素用量对旱作区胡麻生长及产量性状的影响……………

……张 炜,陆俊武,曹秀霞,钱爱萍,刘宽将(53)

棉酚渣对尿素水解及土壤氨挥发的影响……………

……陈 敏,李高生,冼建鸿,王 炜,阎 晶,董倩雯,卢其明(59)

磷营养对天竺葵与彩叶草生长发育的影响……………

……张佳音,王静怡,樊金萍,Hye-Ji Kim(65)

连续秸秆还田替代钾肥对作物产量及土壤钾素平衡的影响…

程文龙,韩 上,武 际,李 敏,石祖梁,王 慧,唐 杉,胡 鹏,黄 惠(72)

施肥对豫南稻-油轮作区甘蓝型油菜产量和品质的影响 …

……肖荣英,李银水,曹世攀,连子文(79)

镁肥基施及后期喷施对油菜产量与品质的影响……………

……田贵生,陆志峰,任 涛,鲁剑巍(85)

不同有机肥对宁夏枸杞生长、产量及品质的影响……………

……王亚雄,常少刚,王 锐,孙 权(91)

烟末(梗)有机肥对 3 种不同类型作物土壤养分及产量和品质
的影响…………… 王亚麒,魏立本,易忠经,赵 建,袁 玲(96)

基于主成分和聚类分析法评价不同有机滴灌肥处理对酿酒葡
萄和葡萄酒品质的影响… 王振龙,张筠筠,孙 权,王 锐(104)

施用生物有机肥对枸杞产量、品质及土壤肥力的影响……………

……闫鹏科,常少刚,孙 权,王 锐(112)

微生物肥对设施土壤次生盐渍化和番茄生产的影响……………

……张绪美,曹亚茹,沈文忠,管永祥,曾晓萍,马金骏,胡青青(119)

不同水分和物料配比条件下堆肥氨气排放量研究……………

……田 野,刘善江,陈益山(127)

添加苹果渣对猪粪好氧堆肥理化性状的影响·····	陶 勇,湛含辉,唐铄松 (135)
添加生物炭对鸡粪好氧堆肥过程中养分转化的研究·····	吴晓东,邢泽炳,何远灵,张瑞卿,谷晓霞 (141)
添加绢云母对菇类太空包废料堆肥化及作物生长的影响·····	郭家和,曾雅欣,徐宛君,林永鸿,陈朝圳 (147)
沼液浸种对蒙古黄芪种子萌发及幼苗生理特性的影响·····	陆国弟,杨扶德,王惠珍,杜 弢,郑 健,邢 豪 (155)
叶面喷施氧化型谷胱甘肽对设施草莓光合作用、产量和品质的影响 ·····	吴长春,雷伟伟,范珊珊,陈 娟,邹春琴,陈新平,曲明山,赵永志 (163)
叶面喷施几丁寡糖对辣椒的生长发育和品质的影响·····	毛志强,辛雪成,周 繁,龙惊惊,崔顺艳,王 宇,焦 姣,王 芳 (170)
玉米耐 Na_2CO_3 胁迫的生理响应及耐盐碱性综合评价 ·····	景宇鹏,李跃进,蔺亚莉,李焕春,李秀萍,莎 娜,栗燕芳 (179)
栽培模式对寒地粳稻产量及养分吸收积累的影响·····	吕艳东,胡 月,李 猛,姜红芳,兰宇辰,王鹤璎,郭晓红 (187)
不同可降解地膜对土壤水热变化和玉米产量的影响···	李开宇,肖继兵,杨 宁,冯良山,张 哲,冯 晨 (194)
畜禽粪便堆肥快速升温除臭多功能复合菌剂及其应用·····	徐 杰,许修宏,门梦琪,行国瑞,谷 猛,杨 阳,杨荣艺,边鑫雨 (200)

· 分析测试 ·

连续流动分析仪与自动凯氏定氮仪测定土壤全氮含量比较·····	宋书会,张金尧,汪 洪 (207)
--------------------------------	---------------------

· 广告信息 ·

江苏淮安大华生物科技有限公司·····	(212)
中国农业科学院微信版“养分专家”上线 ·····	(封二)
双龙集团有限公司·····	(封三)
《中国土壤与肥料》期刊概览 ·····	(封底)

SOIL AND FERTILIZER SCIENCES IN CHINA

Bimonthly (Started in 1964)

No. 5, 2019 (Tot. No. 283)

Published on Oct. 10, 2019

Editor in Chief XU Ming-gang

Deputy Editor in Chief LU Chang-ai

Members of Editorial Board

WANG Xu WANG Qiu-bing SHI Xiao-jun
BAI You-lu LIU Bao-cun SUN Jian-guang
LI Jun LI Xiao-lin YANG Jun-cheng
WU Li-zhong ZHANG Gan-lin ZHANG
Xu-dong LIN Xin-jian ZHOU Jian-bin
ZHENG Hai-chun ZHAO Bing-qiang
PANG Huan-cheng HUANG Zi-wei
HUANG Hong-xiang ZENG Si-jian XIE
Liang-shang LU Jian-wei WEI Dan

Sponsored by

Institute of Agricultural Resources and Re-
gional Planning, CAAS
Chinese Society of Plant Nutrition and Fertil-
izer Sciences

Published by Editorial Department of Soil and
Fertilizer Sciences in China

Address No. 12 South Street, Zhongguancun,
Beijing

Postcode 100081

URL <http://chinatrfll.alljournal.net.cn>

E-mail trfl@caas.cn

Tel (010) 82108656

Fax (010) 82106225

Oversea Distributor

China International Book Trading Corporation

CONTENTS

Research progress on microorganisms commonly used in composting and their effects	CAI Rui, XU Chun-cheng (1)
Distribution characteristics and influencing factors of pH value in tobacco growing soil in Malong.....	ZHOU Zi-fang, XIE Yan, YI Ke, WANG Rui-bao, LIU Jia-hong, HE Zhi-ming, DU Jian, LI Qiang (8)
The variation of characteristics of soil microorganism during the growth of tobacco plants	LIN Shu-zhen, LI Xiao-long, LI Hong-li, ZHAN Yi-zhong, LU A-qian, TIAN Yan-hua, WANG Yan (14)
Effects of different straw returning methods on soil enzyme activity and maize yield	LIU Wei-bin, TIAN Wen-bo, CHEN Long, LIU Ya-liang, YU Han, GU Yan (25)
Study and application of nitrogen fertilizer optimization in paddy field of meadow albic soil in Sanjiang plain——A case study at Qianjin farm.....	 WANG Qiu-ju, LI Peng-fei, LIU Feng, JIAO Feng, JIANG Hui (30)
Effect of nitrogen levels on growth and yield of potato in an aeroponic system	WANG Ke-xiu, TANG Ming-xia, HU Jian-jun, WANG Cui-cun, LIU Ke-xin, YANG Wen-ting, HE Wei (38)
Effects of short-term low-nitrogen treatment on AsA and soluble sugar contents of cucumber during flowering stage	 LI Yun-yun, LI Qiang, YU Hong-jun, JIANG Wei-jie (46)
Effects of sulfur coated urea dosage on growth and yield traits of oil flax in dry farming region	ZHANG Wei, LU Jun-wu, CAO Xiu-xia, QIAN Ai-ping, YAN Kuan-jiang (53)
Effect of gossypol residue on urea hydrolysis and ammonia volatilization in soil	CHEN Min, LI Gao-sheng, XIAN Jian-hong, WANG Wei, YAN Jing, DONG Qian-wen, LU Qi-ming (59)
Phosphorus requirements of geranium and coleus during vegetative and reproduction growths	 ZHANG Jia-yin, WANG Jing-yi, FAN Jin-ping, Hye-Ji Kim (65)
Effect of continuous straw incorporation substitute for K-fertilizer on crop yield and soil potassium balance	CHENG Wen-long, HAN Shang, WU Ji, LI Min, SHI Zu-liang, WANG Hui, TANG Shan, HU Peng, HUANG Hui (72)
Effects of fertilization on yield and quality of brassica napus in the rice-rape seed rotation system in the southern Henan province	 XIAO Rong-ying, LI Yin-shui, CAO Shi-pan, LIAN Zi-wen (79)
Effects of spraying magnesium on the yield and quality of oilseed rape under different magnesium fertilizer application rates	 TIAN Gui-sheng, LU Zhi-feng, REN Tao, LU Jian-wei (85)

Effects of different organic fertilizers on growth, yield and quality of <i>Lycium barbarum</i> L.	WANG Ya-xiong, CHANG Shao-gang, WANG Rui, SUN Quan (91)
Effects of tobacco organic fertilizer on soil nutrient, yield and quality of three different types of crops	WANG Ya-qi, WEI Li-ben, YI Zhong-jing, ZHAO Jian, YUAN Ling (96)
Evaluation of the effects of different organic fertilizer drip irrigation treatments on the quality of wine grapes and wines based on principal component and clustering analysis	WANG Zhen-long, ZHANG Jun-jun, SUN Quan, WANG Rui (104)
Effect of bio-organic fertilizer on yield, quality and soil fertility of wolfberry	YAN Peng-ke, CHANG Shao-gang, SUN Quan, WANG Rui (112)
Effects of microbial fertilizer on soil secondary salinization and tomato production in protected cultivation	ZHANG Xu-mei, CAO Ya-ru, SHEN Wen-zhong, GUAN Yong-xiang, ZENG Xiao-ping, MA Jin-jun, HU Qing-qing (119)
Study on ammonia emission from composting under different moisture and material ratios	TIAN Ye, LIU Shan-jiang, CHEN Yi-shan (127)
Effect of adding apple residue on physicochemical properties of swine feces aerobic compost	TAO Yong, ZHAN Han-hui, TANG Shuo-song (135)
Nutrient transformation during chicken manure composting with biochar under aerobic conditions	WU Xiao-dong, XING Ze-bing, HE Yuan-ling, ZHANG Rui-qing, GU Xiao-xia (141)
Effects of sericite additive on the composting treatment of mushroom waste and plant growth	GUO Jia-he, ZENG Ya-xin, XU Wan-jun, LIN Yong-hong, CHEN Chao-zhen (147)
Effects of biogas slurry soaking seeds on seed germination and physiological characteristics of <i>Astragalus membranaceus</i> var. <i>mongholicus</i> seedling	LU Guo-di, YANG Fu-de, WANG Hui-zhen, DU Tao, ZHENG Jian, XING Hao (155)
Effect of foliar application of oxidized glutathione (GSSG) on photosynthesis rate, yield and quality of strawberry under protected cultivation	WU Chang-chun, LEI Wei-wei, FAN Shan-shan, CHEN Juan, ZOU Chun-qin, CHEN Xin-ping, QU Ming-shan, ZHAO Yong-zhi (163)
Effects of foliar spraying chitin oligosaccharides on the growth, development and quality of <i>Capsicum annuum</i> L.	MAO Zhi-qiang, XIN Xue-cheng, ZHOU Fan, LONG Jing-jing, CUI Shun-yan, WANG Yu, JIAO Jiao, WANG Fang (170)
Comprehensive evaluation of physiological response and saline-alkali resistance of maize to Na ₂ CO ₃ stress	JING Yu-peng, LI Yue-jin, LIN Ya-li, LI Huan-chun, LI Xiu-ping, SHA Na, LI Yan-fang (179)
Effects of cultivation patterns on yield and nutrient absorption and accumulation of japonica rice	LÜ Yan-dong, HU Yue, LI Meng, JIANG Hong-fang, LAN Yu-chen, WANG He-ying, GUO Xiao-hong (187)
Effect of different degradable mulching film on soil water content and temperature and yield of corn	LI Kai-yu, XIAO Ji-bing, YANG Ning, FENG Liang-shan, ZHANG Zhe, FENG Chen (194)
Research and application of multifunctional agent for warming and deodorizing in livestock manure composting	XU Jie, XU Xiu-hong, MEN Meng-qi, XING Guo-rui, GU Meng, YANG Yang, YANG Rong-yi, BIAN Xin-yu (200)
Determination total nitrogen in the Kjeldahl digests of soil samples by continuous flow analyzer in comparison with automated distillation-titration instrument	SONG Shu-hui, ZHANG Jin-yao, WANG Hong (207)