



ISSN 1002-2481
CN 14-1113/S



Q K 1 8 5 6 9 9 2

山西農業科學

JOURNAL OF SHANXI AGRICULTURAL SCIENCES

SHANXI NONGYE KEXUE

第46卷第11期（总第393期）

- 中国科技核心期刊
- 中国学术期刊综合评价数据库（CAJCED）统计源期刊
- 中国期刊全文数据库（CJFD）全文收录
- 中国核心期刊（遴选）数据库全文上网
- 中文科技期刊数据库全文收录
- 超星期刊域出版平台全文收录

2018 11
Vol.46 No.11

ISSN 1002-2481



9 771002 248110



万方数据

山西省农业科学院 主办

目 次

生物技术

农杆菌浸蘸柱头创制高品质抗虫棉研究 吴慎杰, 李 静, 史秀梅, 等(1781)

遗传育种

40份糜子品种的表型性状鉴定与遗传多样性分析 景小兰, 李志华, 董 旭, 等(1786)

一种快速批量转 *Bt* 基因抗虫棉杂交后代的筛选方法 赵俊侠, 陈 耕, 潘转霞, 等(1792)

观赏类红满堂的选育及栽培技术要点 高敬东, 王淑婷, 杜海燕, 等(1794)

生理生化

盐胁迫对茄子光合特性、叶绿素荧光及保护酶活性的影响 赵跃锋, 陈 昆, 张清华(1797)

氮素运筹对不同基因型紫苏幼苗生理特性的影响 赵永平, 陈晓蒙, 朱 亚, 等(1800)

HPLC 法同时测定山楂中展青霉素和 5-羟甲基糠醛的含量 吴 仲, 张 劲(1804)

银杏内生细菌 JX-3 生长条件优化 BARANYIKA Jean Baptiste, 马晓燕, 王慧慧, 等(1808)

遮阴处理对蟹爪兰和盆栽榕树生理特性的影响 何 瑞, 苏朝棉, 赵娇娇, 等(1811)

人工老化对红花种子萌发和幼苗生长的影响 候丽丽, 王 伟, 崔新菊, 等(1814)

耕作与栽培

小麦抗干热风制剂配方筛选与作用机制研究 席吉龙, 张建诚, 杨 娜, 等(1818)

不同生育时期喷施多效唑对谷子光合特性及产量的影响 鱼冰星, 王宏富, 杨 净, 等(1823)

简化“抱窝”栽培对乌蒙山区马铃薯产量及效益的影响 梁淑敏, 杨琼芬, 刘 飞, 等(1827)

大蒜套作对温室茄子根际土壤微生物数量与土壤酶活性的影响 秦 伟, 陈 昆, 赵跃锋(1831)

不同浓度沼液滴灌对设施番茄生长发育的影响 焦翔翔, 朱教宁, 李永平, 等(1834)

树形结构对玉露香梨早期产量及果实品质的影响 蔚 露, 牛自勉, 林 绿, 等(1838)

2 种架式对设施无核翠宝葡萄的影响 赵旗峰, 谭 伟, 李晚梅, 等(1842)

1 年生地被植物在山西省引种及适应性研究 赵杏锁, 孙海博, 和建云, 等(1846)

资源与环境

基施氮肥形态及用量对小麦根际土壤脲酶活性垂直分布的影响 李军辉, 夏 清, 杨珍平, 等(1852)

不同甘薯专用肥对富钾土壤中甘薯产量和生长发育的影响 解晓红, 王凌云, 李江辉, 等(1859)

不同氮水平下生物炭与菌肥对采煤塌陷复垦土壤养分与氮素利用率的影响 许剑敏, 梁利宝(1863)

外生菌根真菌接种与铝胁迫对土贡松幼苗生长的影响 叶锦培, 黄振格, 梁彩霞, 等(1867)

氮肥和多效唑对金槐二次槐米性状的影响 史艳财, 蒋立全, 邹 蓉, 等(1871)

不同肥料对芝麻生长的影响 王若鹏, 韩俊梅, 任果香, 等(1875)

番茄穴盘育苗基质筛选试验 赵 婧, 仪泽会, 毛丽萍(1878)

山西农谷土壤养分空间特征分布研究 刘立文, 徐立帅, 段永红, 等(1882)

山西省近 10 a 来农业气象灾害及其特征分析 田国珍, 米晓楠, 王志伟, 等(1887)

察布查尔县草地资源承载力研究 肯加汉·色别克, 祖力菲娅·买买提(1893)

植物保护

不同除草剂对冬小麦田阔叶及禾本科杂草的防除效果 李晚琴, 姚永定, 闫 雪, 等(1899)

主要营养和环境因素对疣孢漆斑菌 X-16 菌株产孢的影响 董海龙, 王 琳, 张作刚, 等(1903)

10%氟啶虫酰胺悬浮剂对苹果黄蚜的防治效果 范巧兰, 董晨晨, 张贵云, 等(1907)

不同药物滴注对枣疯病防治效果的影响 申仲妹, 杨俊强, 马光跃, 等(1910)

甘蓝田斜纹夜蛾性诱剂应用技术优化 戴长庚, 李鸿波, 张昌容, 等(1915)

松叶蜂幼虫数量与环境因子间的关系 胡志先, 边丹然, 赵俊芳, 等(1918)

畜牧兽医

河南省猪肠外致病性大肠杆菌毒力因子的检测及分布 徐引弟, 张青娴, 王治方, 等(1921)

獭兔源金黄色葡萄球菌 16S rDNA 鉴定与耐药性分析 张国权, 孙乐天, 王国艳, 等(1926)

山西省奶牛副结核病的血清学调查 韩一起(1929)

奶牛乳房炎中药注射剂的制备 高 翔, 韩克光(1931)

贮藏与加工

卷烟主流烟气有害成分释放量对贮丝时间的响应 高 珂, 熊党安(1935)

农业经济

山西省甘薯产业发展现状及对策 贾峰嵘, 李江辉, 武宗信, 等(1939)

全株玉米窖贮经济效益分析 欧 翔, 许庆方, 玉 柱, 等(1943)

河南省牛养殖业废弃物资源产业化结合途径分析 聂胜委, 张巧萍, 王二耀, 等(1949)

基于流转参与主体需求的农地流转风险研究——以山西省太谷县为例 李言松, 李富忠(1954)

简析农业科技成果转化的研究现状及对山西省的启示 陈敏克, 孟颖超(1959)

综 述

论小麦高产育种与杂种优势的利用 赵吉平, 任杰成, 郭鹏燕, 等(1963)

超临界 CO₂萃取技术在植物源农药提取中的应用 姚 众, 董晨晨, 张贵云, 等(1967)

中药免疫增强剂在养鸡生产中的应用研究进展 魏 恒, 李娟娟(1971)

CONTENTS

● Biotechnology

Study on the Production of High Quality Insect Resistant Cotton with Agrobacterium Dipped in Stigma WU Shenjie, LI Jing, SHI Xumei, et al(1781)

● Genetics and breeding

Phenotypic Traits Identification and Genetic Diversity Analysis of 40 Prosmillet Varieties JING Xiaolan, LI Zhihua, DONG Xu, et al(1786)

A Screening Method for Rapid Batch Transfer of *Bt* Transgenic Cotton Hybrid Offspring ZHAO Junxia, CHEN Geng, PAN Zhanxia, et al(1792)

Breeding and Cultivation Techniques of Ornamental Hongmantang GAO Jingdong, WANG Shuting, DU Haiyan, et al(1794)

● Physiology and biochemistry

Effects of Salt Stress on Photosynthetic Characteristics, Chlorophyll Fluorescence and *Protective Enzyme* Activity of Eggplant ZHAO Yuefeng, CHEN Kun, ZHANG Qinghua(1797)Effect of Nitrogen Application on Physiological Characteristics of Different Genotype *Perilla frutescens* Seedlings ZHAO Yongping, CHEN Xiaomeng, ZHU Ya, et al(1800)

Simultaneous Determination of Patulin and 5-Hydroxymethylfurfural in Hawthorn by HPLC WU Zhong, ZHANG Xun(1804)

Study on the Optimization of *Ginkgo biloba* L. Endophyte IX-3 Growth Conditions BARANYIKA Jeanbaptiste, MA Xiaoyan, WANG Huihui, et al(1808)

Effects of Shading Treatment on Physiological Characteristics of Potted Banyan and Crab Claw HE Rui, SU Zhaomian, ZHAO Jiaoqiao, et al(1811)

Effects of Artificial Aging on Seed Germination and Seedling Growth of Safflower HOU Lili, WANG Wei, CUI Xinju, et al(1814)

● Cultivation

Study on Recipe Screening of Wheat Dry-hot Wind Tolerance Agent and Mechanism XI Jilong, ZHANG Jiancheng, YANG Na, et al(1818)

Effect of Paclobutrazol on Photosynthetic Characteristics and Yield of Foxtail Millet at Different Growth Stages YU Bingxing, WANG Hongfu, YANG Jing, et al(1823)

Effect of Simplified "Nest" Cultivation on Yield and Benefit of Potato in the Mountainous Area of Wumeng LIANG Shumin, YANG Qiongfen, LIU Fei, et al(1827)

Effects of Intercropping Garlic on Soil Microbial Biomass and Enzyme Activities in Greenhouse Eggplant Rhizosphere Soil QIN Wei, CHEN Kun, ZHAO Yuefeng(1831)

Effects of Different Concentration of Drip Irrigation with Biogas Slurry on Facility Tomato Growth JIAO Xiangxiang, ZHU Jianing, LI Yongping, et al(1834)

Effect of Tree Form on Early Yield and Fruit Quality of Yuluxiang Pear YU Lu, NIU Zimian, LIN Lu, et al(1838)

Effects of Two Trellis Systems on Wuhecuibao Grape ZHAO Qifeng, TAN Wei, LI Xiaomei, et al(1842)

Study on Introduction and Adaptability of Annual Groundcover Plants in Shanxi Province ZHAO Xingsuo, SUN Haibo, HE Jianyun, et al(1846)

● Resources and environment

Effects of Different Kinds of Basal Application Slow-release Fertilizers and Dosages on Vertical Distribution of Urease Activity in Wheat Rhizosphere Soil LI Junhui, XIA Qing, YANG Zhenping, et al(1852)

Effect of Different Special Fertilizers on Yield and Growth of Sweet Potato in Potassium-rich Soil XIE Xiaohong, WANG Lingyun, LI Jianghui, et al(1859)

Effect of Biochar and Microbial Fertilizer on Soil Nutrient Content of Coal Mining Subsidence Reclaimed and Nitrogen Use Efficiency under Different Nitrogen Levels XU Jianmin, LIANG Libao(1863)

Effects of Ectomycorrhizal Fungi Inoculation and Aluminium Stress on Growth of *Pinus massoniana* Seedlings YE Jinpei, HUANG Zhenge, LIANG Caixia, et al(1867)Effects of Nitrogen Fertilizer and Paclobutrazol on Second Flower Characters of *Sophora japonica* SHI Yancai, JIANG Liquan, ZOU Rong, et al(1871)

Effects of Different Fertilizers on Sesame Growth WANG Ruopeng, HAN Junmei, REN Guoxiang, et al(1875)

Study on the Selection of Nursery Substrates for Tomato Plug Seedling ZHAO Jing, YI Zehui, MAO Liping(1878)

Study on Spatial Distribution Characteristics of Soil Nutrients in Shanxi Agricultural Valley LIU Liwen, XU Lishuai, DUAN Yonghong, et al(1882)

Analysis of Agricultural Meteorological Disasters and Its Characteristics in Shanxi Province in Recent Ten Years TIAN Guozhen, MI Xiaonan, WANG Zhiwei, et al(1887)

Study on the Carrying Capacity of Grassland Resources in Qapqal County KENJIAHAN·Sebieke, ZULIFEIYA·Maimaiti(1893)

● Plant protection

Study on the Control Effect of Different Herbicides on Broadleaf and Gramineous Weeds in Winter Wheat Field LI Xiaoqin, YAO Yongding, YAN Xue, et al(1899)

Effects of Main Nutrient and Environmental Factors on Conidial Production of Different *Myrothecium verrucaria* Strain X-16 DONG Hailong, WANG Lin, ZHANG Zuogang, et al(1903)Field Control Efficacy of 10% SC Flonicamid on *Aphis ciricola* FAN Qiaolan, DONG Chenchen, ZHANG Guiyun, et al(1907)

Effect of Different Drugs Dripped on Prevention and Cure of Jujube Witches' Broom Disease SHEN Zhongmei, YANG Junqiang, MA Guangyue, et al(1910)

Optimization of Sex Pheromone Trap of *Spodoptera litura* in Cabbage Field DAI Changgeng, LI Hongbo, ZHANG Changrong, et al(1915)

Study on the Relationship between the Number of the Diprionidae Larvae and Environmental Factors HU Zhixian, BIAN Danran, ZHAO Junfang, et al(1918)

● Animal husbandry and veterinary

Identification and Distribution of Virulence Factors of Extraintestinal Pathogenic *Escherichia coli* of Swine in Henan Province XU Yindi, ZHANG Qingxian, WANG Zhifang, et al(1921)Identification of 16S rDNA of *Staphylococcus aureus* from Rex Rabbits and Analysis of Drug Resistance ZHANG Guoquan, SUN Letian, WANG Guoyan, et al(1926)

Serological Survey of Paratuberculosis in Dairy Cow in Shanxi Province HAN Yichao(1929)

Preparation of Traditional Chinese Medicine Injection for Cow Mastitis GAO Xiang, HAN Keguang(1931)

● Storage and processing

Study on the Response of the Contents of Harmful Components in Mainstream Cigarette Smoke to Storage Time GAO Ke, XIONG Dangan(1935)

● Agricultural economy

Development Situation and Countermeasures of Sweet Potato Industry in Shanxi Province JIA Zhengrong, LI Jianghui, WU Zongxin, et al(1939)

Benefit Analysis of Whole Crop Corn Silage in Bunker Silos OU Xiang, XU Qingfang, YU Zhu, et al(1943)

Analysis on the Way of Combining Waste Resources Industrialization of Cattle Production System with Other Fields in Henan Province NIE Shengwei, ZHANG Qiaoping, WANG Eryao, et al(1949)

Study on Agricultural Land Transfer Risk Based on Circulation Participating in Subject Demand—Taking Taigu County of Shanxi Province as an Example LI Yansong, LI Fuzhong(1954)

Analysis on the Current Situation of Agricultural Scientific and Technological Achievement Transformation and Its Enlightenment to Shanxi Province CHEN Minke, MENG Yingchao(1959)

● Review

Discussion about the High-yield Wheat Breeding and the Utilization of Hybrid Vigor ZHAO Jiping, REN Jiecheng, GUO Pengyan, et al(1963)

Application of Supercritical CO₂ Extraction Technique in the Extraction of Botanical Pesticides YAO Zhong, DONG Chenchen, ZHANG Guiyun, et al(1967)

Research Progress of Application of Traditional Chinese Medicine Immunopotentiator in Raising Chicken WEI Heng, LI Juanjuan(1971)

山西農業科學

JOURNAL OF SHANXI AGRICULTURAL SCIENCES

《山西农业科学》编委会

主任：乔雄梧

副主任：陈明昌 翡增顺（常务）

委员：（按姓氏笔画排列）

卫云宗	王云山	王节之	王福传	王春珍
牛自勉	毛杨毅	田建保	白琪林	乔雄梧
乔燕祥	刘学义	孙毅	孙振	闫文泽
陈明昌	陈永欣	张剑国	张福耀	杨效民
李永山	李建华	罗建军	畅志坚	陕方
贺东昌	南建福	康锁成	梁吉义	焦晓燕
翡翠增顺				

主编：康锁成

责任编辑：杜慧平

英文编辑：杜慧平 李素娟

电脑照排：赵 明

山西农业科学

(1961年1月创刊)

2018年第46卷第11期

(月刊 每月20日出版)

**Journal of Shanxi
Agricultural Sciences**

Vol. 46 No.11 2018

(Monthly)

主管主办：山西省农业科学院

编辑出版：《山西农业科学》编辑部

地 址：太原市龙城大街81号

邮政编码：030031

电 话：0351-7089783 7075565

电子信箱：sxnykx@126.com

印 刷：山西省农业科学院文印中心

发 行：山西省邮政报刊发行局

邮发代号：22-24

Administrator Sponsor Shanxi Academy of Agricultural Sciences

Editor Publisher Editorial Department of Journal of Shanxi

Agricultural Sciences

81 Longcheng Street Taiyuan

030031

0351-7089783 7075565

sxnykx@126.com

Printer Printing Centre of Shanxi Academy of

Agricultural Sciences

Distribution Bureau of Shanxi Post Office

22-24

中国标准连续出版物号：ISSN 1002-2481
CN 14-1113/S

发行范围：公开

定价：8.00元