



ISSN 1005-9369  
CN 23-1391/S

# 东北农业大学学报

JOURNAL OF NORTHEAST AGRICULTURAL UNIVERSITY

第54卷 第2期

Vol.54 No.2

ISSN 1005-9369

A standard linear barcode representing the journal's ISSN and volume/issue information.

9 771005 936236

2023.2

# 东北农业大学学报

月刊 1957年创刊

第54卷 第2期 总336期 2023年2月

## 目 次

大豆品种对苜蓿花叶病毒的抗性鉴定

.....武晓云，姜雪，王馨玥，杨英帅，张莹，王宇婷，马廷帅，刘琦，刘鑫磊，  
栾晓燕，程晓非（1）

低温下寒地冬小麦差异蛋白表达比较分析

.....王晓楠，李宁辉，刘畅，陆霄光，杜羽晨，付连双，刘君（8）

白僵菌对二化螟致病力及与Bt混用协同作用研究.....于洪春，王紫君，任中杰，李柏函（17）

西瓜属4个近缘种果肉代谢产物组分差异分析

.....王学征，刘晨昕，孙婷婷，陈克农，朱子成，韩文灏，栾非时（26）

番茄优良自交系部分品质性状杂种优势及配合力分析

.....杨欢欢，方晴，聂中欣，张贺，赵婷婷，许向阳，李景富，姜景彬（37）

大肠杆菌诺氟沙星超敏感多基因敲除株KYAH06构建与功能验证

.....姜巨全，宋阳，Heba Abdel-Motaal，邹俏（49）

L-肉碱对巴民育肥猪背脂代谢相关基因表达的影响

.....李建平，董嘉文，宋海宁，吴泽，马智卓（56）

基于无人机高光谱分数阶微分玉米SPAD值估算

.....郑智康，常庆瑞，姜时雨，符欣彤，李铠，张子娟，莫海洋（66）

免耕和免耕覆秸耕播模式对土壤物理性质影响的研究

.....王英，徐连敬，孙健，刘自广，何鑫森，乔金友（75）

基于EDEM-RecurDyn的自激式振动深松铲耦合仿真研究.....宋朋，吕金庆（87）

[期刊基本参数]: CN23-1391/S\* 1957\* m\* A4\* 94\* zh\* P\* ¥ 20.00\* 700\* 10\* 2023-02

**DONGBEI NONGYE DAXUE XUEBAO**  
**JOURNAL OF NORTHEAST AGRICULTURAL UNIVERSITY**

Monthly    Vol. 54 No. 2(Cumulated No. 336)    February 2023

---

**CONTENTS**

Identification of the resistance of soybean varieties to alfalfa mosaic virus .....	WU Xiaoyun, et al. ( 1 )
Comparative analysis of differential protein expression of winter wheat in cold region at low temperature .....	WANG Xiaonan, et al. ( 8 )
Study on pathogenicity of <i>Beauveria bassiana</i> to <i>Chilo suppressalis</i> and synergism with <i>Bacillus thuringiensis</i> .....	YU Hongchun, et al. ( 17 )
Variance analysis on sarcocarp metabolite components of <i>Citrullus</i> four relatives .....	WANG Xuezheng, et al. ( 26 )
Analysis of heterosis and combining ability of some quality traits in tomato inbred lines .....	YANG Huanhuan, et al. ( 37 )
Construction and functional verification of norfloxacin hypersensitive multi-gene knockout mutant <i>Escherichia coli</i> KYAH06 .....	JIANG Juquan, et al. ( 49 )
Effects of L-carnitine on the expression of genes related to dorsal lipid metabolism in Berkshire×Min finishing pigs .....	LI Jianping, et al. ( 56 )
Estimation of maize SPAD value based on fractional differential of UAV hyperspectral .....	ZHENG Zhikang, et al. ( 66 )
Study on effects of no-tillage and no-tillage and straw mulching on soil physical properties .....	WANG Ying, et al. ( 75 )
Effects of coupling simulation of self-excited vibratory subsoiler based on EDEM-RecurDyn .....	SONG Peng, et al. ( 87 )

[Serial parameters]: CN23-1391/S\* 1957\* m\* A4\* 94\* zh\* P\* ¥ 20.00\* 700\* 10\* 2023-02