



中国 农业 科 学

ZHONGGUO NONGYE KEXUE 2026 年第 59 卷第 19 期

目 次

作物遗传育种 · 种质资源 · 分子遗传学

- 4195-4207 DOI: 10.3864/j.issn.0578-1752.2026.19.001
植物表观转录组学：调控逆境响应的分子机制与抗逆育种展望
张策 张严妍 刘璇东 路笃贤 林金星 崔亚宁
- 4208-4220 DOI: 10.3864/j.issn.0578-1752.2026.19.002
水稻耐厌氧萌发 QTL 鉴定及候选基因挖掘
杨惠娟 刘伟凡 余晓蔓 黄丹霖 陈丹丹 舒亚洲 魏华 贺慧英 商连光 袁巧玲
- 4221-4234 DOI: 10.3864/j.issn.0578-1752.2026.19.003
291 份甘蔗种质资源黑穗病抗性评价及抗病种质发掘
普新援 马云飞 赵俊 赵丽萍 赵兴东 胡鑫 咎逢刚 刘家勇 杨丽华 夏红明 陆鑫 饶席兵 唐思琪 白亚东
张静 任生林 赵培方

耕作栽培 · 生理生化 · 农业信息技术

- 4235-4249 DOI: 10.3864/j.issn.0578-1752.2026.19.004
海河平原冬小麦源库特征与品质性状的协同演变分析
杜瑞瑞 黄学郡 于洋 孙萌萌 李振磊 蒋文娜 刘小利 甄文超 王彦东
- 4250-4262 DOI: 10.3864/j.issn.0578-1752.2026.19.005
多样化轮作对土壤微生物群落特征和共现网络的影响
王璐莹 杨杰 卢海涛 王欣 赵英龙 杨杰 王贵彦

土壤肥料 · 节水灌溉 · 农业生态环境

- 4263-4276 DOI: 10.3864/j.issn.0578-1752.2026.19.006
长期施用生物炭对瘠薄旱地农田固碳减排及作物生产的影响
段旭坤 魏禾雅 李建政 田峪萍 王立刚
- 4277-4288 DOI: 10.3864/j.issn.0578-1752.2026.19.007
连续耕种和退耕造林对典型草原氮、磷养分的影响
包雨凡 珠娜 张敬敏 赵曼 刘嘉慧 罗玉红 李乐 徐诺 闫玉春
- 4289-4300 DOI: 10.3864/j.issn.0578-1752.2026.19.008
基于本土化排放因子的中国农业土壤一氧化氮排放清单核算与减排潜力预测
曾慧明 卢可馨 周文晶 程琨

4301-4317	DOI: 10.3864/j.issn.0578-1752.2026.19.009
自然养育农业：基于多界协同的新农业态思考	
陈柯烨 蒋硕匀 王先哲 梁新强 汤小天 姜培坤 岳春雷 张志剑	

专题：基于自然的解决方案：绿色农业转型的研究范式与中国实践

4318-4322	DOI: 10.3864/j.issn.0578-1752.2026.19.010
导读：基于自然的解决方案：绿色农业转型的研究范式与中国实践	
贾相平 成功	

4323-4334	DOI: 10.3864/j.issn.0578-1752.2026.19.011
全球基于自然的解决方案在农业研究中的演进脉络、驱动机制与中国路径	
梁晓贺 王琦 雷洁 周加加 吴昊 周爱莲	

4335-4348	DOI: 10.3864/j.issn.0578-1752.2026.19.012
基于自然解决方案的作物高产可持续转型	
罗宁 李兆磊 徐彩龙 牛娜 王璞 孟庆锋	

4349-4357	DOI: 10.3864/j.issn.0578-1752.2026.19.013
基于自然解决方案的秸秆综合利用关键技术和模式——粮菇定区轮作	
孔维丽 王立杰 郑靖康 高芳 李涛 张珂珂 张玉亭	

4358-4373	DOI: 10.3864/j.issn.0578-1752.2026.19.014
基于自然的解决方案视角下强化国际食品法典标准体系：治理模型和实践路径	
宁明皓 路馨丹 高芳 徐上 贾相平	

4374-4390	DOI: 10.3864/j.issn.0578-1752.2026.19.015
基于自然解决方案视角下的农业文化遗产研究范式探析	
肖云泽 张宇 成功 练子柔 周厚熹	

食品科学与工程

4391-4399	DOI: 10.3864/j.issn.0578-1752.2026.19.016
未来食品视角下的谷物科学及加工技术	
魏益民 卢淑雯 刘景圣 张浩 张波 沈群 余永新 胡新中 关二旗 张影全 李明 郭波莉	

畜牧·兽医

4400-4416	DOI: 10.3864/j.issn.0578-1752.2026.19.017
低氧相关因子在牦牛和黄牛小肠组织中的表达差异分析	
张叶琼 王军 徐铭蔚 胡嘉琦 刘莎莎 蓝雯琳 谈笑 杨琨	

4417-4432	DOI: 10.3864/j.issn.0578-1752.2026.19.018
牛呼吸道疾病综合征病原菌多重 qPCR 检测试剂盒的研制与应用	
刘鑫卓 王馨钰 张跃伟 吴浩 谷月 王爽 吴文学	

CONTENTS

CROP GENETICS & BREEDING·GERMPLASM RESOURCES·MOLECULAR GENETICS

4195-4207 DOI: 10.3864/j.issn.0578-1752.2026.19.001

Plant Epitranscriptomics: Molecular Mechanisms Regulating Stress Responses and Prospects for Stress-Resistant Breeding

ZHANG Ce, ZHANG YanYan, LIU XuanDong, LU DuXian, LIN JinXing, CUI YaNing

4208-4220 DOI: 10.3864/j.issn.0578-1752.2026.19.002

Identification of QTLs and Exploration of Candidate Genes Conferring Anaerobic Germination Tolerance in Rice

YANG HuiJuan, LIU YiFan, YU XiaoMan, HUANG DanLin, CHEN DanDan, SHU YaZhou, WEI Hua, HE HuiYing, SHANG LianGuang, YUAN QiaoLing

4221-4234 DOI: 10.3864/j.issn.0578-1752.2026.19.003

Evaluation of Smut Resistance and Screening of Resistant Germplasm in 291 Sugarcane Accessions

PU XinYuan, MA YunFei, ZHAO Jun, ZHAO LiPing, ZHAO XingDong, HU Xin, ZAN FengGang, LIU JiaYong, YANG LiHua, XIA HongMing, LU Xin, RAO XiBing, TANG SiQi, BAI YaDong, ZHANG Jing, REN ShengLin, ZHAO PeiFang

TILLAGE & CULTIVATION·PHYSIOLOGY & BIOCHEMISTRY·AGRICULTURE INFORMATION TECHNOLOGY

4235-4249 DOI: 10.3864/j.issn.0578-1752.2026.19.004

Evolution of Source-Sink Traits and End-Use Quality in Winter Wheat During Cultivar Replacement in the Haihe Plain

DU RuiRui, HUANG XueJue, YU Yang, SUN MengMeng, LI ZhenLei, JIANG WenNa, LIU XiaoLi, ZHEN WenChao, WANG YanDong

4250-4262 DOI: 10.3864/j.issn.0578-1752.2026.19.005

Effects of Diversified Crop Rotation on Soil Microbial Community Characteristics and Co-Occurrence Network

WANG LuYing, YANG Jie, LU HaiTao, WANG Xin, ZHAO YingLong, YANG Jie, WANG GuiYan

SOIL & FERTILIZER·WATER-SAVING IRRIGATION·AGROECOLOGY & ENVIRONMENT

4263-4276 DOI: 10.3864/j.issn.0578-1752.2026.19.006

Effects of Long-term Biochar Application on Carbon Sequestration, Emission Reduction and Crop Production in Barren Rainfed Farmland

DUAN XuKun, WEI HeYa, LI JianZheng, TIAN YuPing, WANG LiGang

4277-4288 DOI: 10.3864/j.issn.0578-1752.2026.19.007

Effects of Continuous Cultivation and Cropland Afforestation on Nitrogen and Phosphorus Nutrients in Typical Steppe

BAO YuFan, ZHU Na, ZHANG JingMin, ZHAO Man, LIU JiaHui, LUO YuHong, LI Le, XU Nuo, YAN YuChun

4289-4300 DOI: 10.3864/j.issn.0578-1752.2026.19.008

Inventory and Mitigation Potential of Nitric Oxide Emissions from Agricultural Soils in China Based on Localized Emission Factors

ZENG HuiMing, LU KeXin, ZHOU WenJing, CHENG Kun

4301-4317 DOI: 10.3864/j.issn.0578-1752.2026.19.009

Nature-Nurturing Agriculture: Investigation on a New Agricultural Paradigm Based on Cross-Kingdom Synergy

CHEN KeYe, JIANG ShuoYun, WANG XianZhe, LIANG XinQiang, TANG XiaoTian, JIANG PeiKun, YUE ChunLei, ZHANG ZhiJian

SPECIAL FOCUS: NATURE-BASED SOLUTIONS: RESEARCH PARADIGMS AND CHINESE PRACTICES FOR GREEN AGRICULTURAL TRANSITION

4318-4322

DOI: 10.3864/j.issn.0578-1752.2026.19.010

Guidance: Nature-Based Solutions: Research Paradigms and Chinese Practices for Green Agricultural Transition

JIA XiangPing, CHENG Gong

4323-4334

DOI: 10.3864/j.issn.0578-1752.2026.19.011

Evolutionary Trajectory, Driving Mechanisms, and China's Pathway in Global Nature-Based Solutions for Agricultural Research

LIANG XiaoHe, WANG Qi, LEI Jie, ZHOU JiaJia, WU Yu, ZHOU AiLian

4335-4348

DOI: 10.3864/j.issn.0578-1752.2026.19.012

Nature-Based Solutions for Sustainable Transition in High-Yield Cropping Systems

LUO Ning, LI ZhaoLei, XU CaiLong, NIU Na, WANG Pu, MENG QingFeng

4349-4357

DOI: 10.3864/j.issn.0578-1752.2026.19.013

Key Technologies and Models of Straw Comprehensive Utilization: Grain-Mushroom Rotation in Designated Zones as a Nature-Based Solution

KONG WeiLi, WANG LiJie, ZHENG JingKang, GAO Fang, LI Tao, ZHANGKeKe, ZHANG YuTing

4358-4373

DOI: 10.3864/j.issn.0578-1752.2026.19.014

Strengthening the Codex Alimentarius System from a Nature-Based Solution Perspective: Governance Models and Practical Approaches

NING MingHao, LU XinDan, GAO Fang, XU Shang, JIA XiangPing

4374-4390

DOI: 10.3864/j.issn.0578-1752.2026.19.015

Exploring Research Paradigms for Agricultural Heritage from the Perspective of Nature-Based Solutions

XIAO YunZe, ZHANG Yu, CHENG Gong, LIAN ZiRou, ZHOU HouXi

FOOD SCIENCE AND ENGINEERING

4391-4399

DOI: 10.3864/j.issn.0578-1752.2026.19.016

Cereal Science and Processing Technology from the Perspective of Future Food

WEI YiMin, LU ShuWen, LIU JingSheng, ZHANG Hao, ZHANG Bo, SHEN Qun, SHE YongXin, HU XinZhong, GUAN ErQi, ZHANG YingQuan, LI Ming, GUO BoLi

ANIMAL SCIENCE·VETERINARY SCIENCE

4400-4416

DOI: 10.3864/j.issn.0578-1752.2026.19.017

Differential Analysis of Hypoxia-Related Factors in the Small Intestines of Yaks and Yellow Cattle

ZHANG YeQiong, WANG Jun, XU MingWei, HU JiaQi, LIU ShaSha, LAN WenLin, TAN Xiao, YANG Kun

4417-4432

DOI: 10.3864/j.issn.0578-1752.2026.19.018

Development and Application of a Multiplex qPCR Detection Kit for Pathogens Causing Bovine Respiratory Disease Complex

LIU XinZhuo, WANG XinYu, ZHANG YueWei, WU Hao, GU Yue, WANG Shuang, WU WenXue