



ISSN 1008-505X
CN 11-3996/S

植物营养与肥料学报

JOURNAL OF
PLANT NUTRITION AND FERTILIZERS

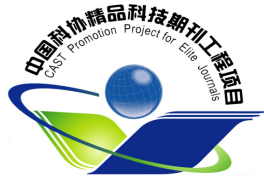
中国科技核心期刊
中文核心期刊
中国农业核心期刊



Vol. 28 No. **7**
2022年7月



中国植物营养与肥料学会 主办
Sponsored by Chinese Society
of Plant Nutrition and Fertilizer Sciences



植物营养与肥料学报

Zhiwu Yingyang Yu Feiliao Xuebao

第 28 卷 第 7 期

目 次

- 1145 1988—2019年中国农田表土有机碳库密度变化及其主要影响因素 韩天富 都江雪 曲潇琳 马常宝 王慧颖
黄晶 柳开楼 刘立生 谢建华 吴远帆
张会民
- 1158 水稻 OsAKT2 的钾吸收功能及其在地上部分 K⁺ 回流中的潜在作用 黄亚楠 李俊林 苏彦华
- 1167 大豆响应低磷胁迫的 XTH 基因鉴定及 XTH38 调节根系生长研究 张亚楠 王婷 欧斯艳 李方剑 黄丽雅
麦翠珊 王金祥
- 1182 确定经济合理施氮量的新方法: 基于施氮量与稻米产量效应函数 彭显龙 车俊杰 宋聪 齐文晶 李鹏飞
刘智蕾 于彩莲
- 1194 豫南紫云英水稻轮作区减施不同比例氮肥对水稻养分吸收和转运的影响 王慧 张琳 常单娜 周国朋 高嵩涓
曾闹华 聂良鹏 吕玉虎 曹卫东
- 1208 绿洲灌区小麦复种绿肥并翻压还田对翌年玉米产量形成及氮素吸收利用的影响 苏向向 于爱忠 吕汉强 王玉琰
- 1219 安徽单季稻区紫云英翻压的氮肥替代效应 卜容燕 韩上 李敏 程文龙 胡润
郑仁兵 王慧 唐杉 高嵩涓 曹卫东
武际
- 1228 天津地区不同冬绿肥培肥土壤的效果 赵秋 张新建 宁晓光 周丽平
- 1238 紫云英还田与氮肥减施对水稻土团聚体中各形态铁锰含量的影响 甘雅芬 徐永昊 周富忠 耿明建 黄丽
- 1249 强筋和中筋小麦氮肥适宜基追比例研究 张子旋 王艳群 甄怡铭 李皓 宋利玲
甄文超 彭正萍
- 1260 夏玉米秸秆还田量和施氮量对冬小麦产量和氮素利用的影响 李红星 高飞 任佰朝 赵斌 刘鹏
张吉旺
- 1271 施氮量对滴灌冬小麦-夏玉米周年产量及氮素利用效率的影响 曲文凯 徐学欣 郝天佳 刘帅 赵金科
孟繁港 赵长星
- 1283 耦合效应弥补水氮减量对夏玉米养分吸收和利用的不利影响 李慧 王旭敏 刘朋召 刘苗 王小利
王瑞 李军
- 1297 条带覆盖免耕下吉林南部玉米行间土壤水分和温度的时空动态 田梦 高伟达 任图生 李保国
- 1308 褪黑素壳聚糖微粒防止褪黑素降解并有效提高其抗旱功能 周彬 于小晶 张民 田虹雨 董晶晶
郭蕾 张天骄

专题综述

- 1318 保水剂对作物生长的不利影响及发生机制 司徒艳结 卫尤明 杨俊颖 毛小云
廖宗文 陈娴

研究简报

- 1329 间作绿肥弥补减施氮肥引起的玉米产量损失 李含婷 柴强 胡发龙 王国瑾 王琦明
樊志龙 殷文 范虹

JOURNAL OF PLANT NUTRITION AND FERTILIZERS

Vol. 28 No. 7

CONTENTS

- 1145 Factors affecting change in topsoil organic carbon pool density in Chinese farmlands from 1988 to 2019
HAN Tian-fu DU Jiang-xue QU Xiao-lin
MA Chang-bao WANG Hui-ying
HUANG Jing LIU Kai-lou LIU Li-sheng
XIE Jian-hua WU Yuan-fan
ZHANG Hui-min
- 1158 The function of OsAKT2 in K⁺ uptake and the aboveground K⁺ reflux of rice
HUANG Ya-nan LI Jun-lin SU Yan-hua
- 1167 Identification and assessment of the role of soybean low phosphate-responsive *Xyloglucan endotransglycosylases/hydrolases* genes in root growth
ZHANG Ya-nan WANG Ting OU Si-yan
LI Fang-jian HUANG Li-ya MAI Cui-shan
WANG Jin-xiang
- 1182 A new method for determining the economic optimum nitrogen application rate: Fertilizer function based on nitrogen rate and milled rice yield
PENG Xian-long CHE Jun-jie SONG Cong
QI Wen-jing LI Peng-fei LIU Zhi-lei
YU Cai-lian
- 1194 Nutrient absorption and transport characteristics of rice under different nitrogen reduction ratios in a Chinese milk vetch and rice rotation system in southern Henan Province, China
WANG Hui ZHANG Lin CHANG Dan-na
ZHOU Guo-peng GAO Song-juan
ZENG Nao-hua NIE Liang-peng LÜ Yu-hu
CAO Wei-dong
- 1208 Effects of wheat multiple cropping with green manure on grain yield formation and nitrogen absorption and utilization of maize in oasis irrigation area in Northwest China
SU Xiang-xiang YU Ai-zhong
LÜ Han-qiang WANG Yu-long
- 1219 Incorporation of milk vetch (*Astragalus sinicus*) reduces nitrogen fertilizer application rate in single cropping rice region of Anhui province
BU Rong-yan HAN Shang LI Min
CHENG Wen-long HU Run
ZHENG Ren-bing WANG Hui TANG Shan
GAO Song-juan CAO Wei-dong WU Ji
- 1228 Effects of different winter green manure on soil fertility in Tianjin
ZHAO Qiu ZHANG Xin-jian
NING Xiao-guang ZHOU Li-ping
- 1238 Effects of Chinese milk vetch incorporation and nitrogen reduction on different forms of Fe and Mn in aggregates of paddy soil
GAN Ya-fen XU Yong-hao
ZHOU Fu-zhong GENG Ming-jian
HUANG Li
- 1249 Optimum basal and topdressing ratios of nitrogen fertilizer for strong and medium gluten wheat cultivars
ZHANG Zi-xuan WANG Yan-qun
ZHEN Yi-ming LI Hao SONG Li-ling
ZHEN Wen-chao PENG Zheng-ping
- 1260 Effects of straw incorporation and nitrogen application rate on winter wheat yield and nitrogen utilization
LI Hong-xing GAO Fei REN Bai-zhao
ZHAO Bin LIU Peng ZHANG Ji-wang
- 1271 Effects of nitrogen application rate on annual yield and N-use efficiency of winter wheat-summer maize rotation under drip irrigation
QU Wen-kai XU Xue-xin HAO Tian-jia
LIU Shuai ZHAO Jin-ke MENG Fan-gang
ZHAO Chang-xing
- 1283 Interaction offset the adverse impacts of water and nitrogen reduction on nutrient accumulation and utilization of summer maize
LI Hui WANG Xu-min LIU Peng-zhao
LIU Miao WANG Xiao-li WANG Rui
LI Jun

1297 Spatio-temporal variation of soil water and temperature between maize rows as affected by no-tillage and strip crop straw mulching in southern Jilin Province

TIAN Meng GAO Wei-da REN Tu-sheng
LI Bao-guo

1308 Melatonin chitosan microparticles decrease degradation and increase drought resistance properties of melatonin

ZHOU Bin YU Xiao-jing ZHANG Min
TIAN Hong-yu DONG Jing-jing GUO Lei
ZHANG Tian-jiao

Comment on special topic

1318 Adverse effects of superabsorbent polymers on crop growth and the underlying mechanisms

SITU Yan-jie WEI You-ming
YANG Jun-ying MAO Xiao-yun
LIAO Zong-wen CHEN Xian

Short communication

1329 Intercropping green manure with maize reduces nitrogen fertilizer input and stabilizes grain yield

LI Han-ting CHAI Qiang HU Fa-long
WANG Guo-cui WANG Qi-ming
FAN Zhi-long YIN Wen FAN Hong