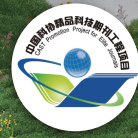


草地学报

ACTA AGRESTIA SINICA

ISSN 1007-0435

CN 11-3362/S



封面文章——祁连山岛状冻土活动层土壤氮库对模拟冻融响应

Cover Article—Response of Soil Nitrogen Pools to A Simulated Freeze-Thaw Test in the Active Layer of Segregated Permafrost on the Qilian Mountains

Global warming

active layer

permafrost

- 中文核心期刊
- 中国科技核心期刊
- Scopus数据库收录期刊
- 《中国科学引文数据库》(C库)源期刊
- 美国《化学文摘》(CA)收录期刊
- 英国《国际农业与生物科学中心文摘》(CABI)收录期刊
- 英国《动物学记录》(ZR)收录期刊
- 波兰《哥白尼索引》(IC)收录期刊

01

Vol.31

2023年01月

草地学报

第31卷第1期

二〇二三年

中文核心期刊
中国科技核心期刊
中国农林核心期刊
RCCSE 中国权威学术期刊
《中国科学引文数据库》C 库期刊
《CAJ-CD 规范》执行优秀期刊
中国科协精品科技期刊工程项目

草地学报

CAODI XUEBAO

ACTA AGRESTIA SINICA

第 01 期

第 31 卷

2023 年 1 月

1991 年创刊(月刊)

主管:中国科学技术协会

主办:中国草学会

主 编:王 堃
编辑部主任:邵新庆
责任编辑:闵芝智,刘婷婷,
彭露茜
英文编辑:刘克思,张万军,
王克华
编 务:葛慧荣

编辑出版:《草地学报》编辑部
地址:北京海淀区圆明园西路 2 号
中国农业大学动科大楼 152 室
邮编:100193
电话/传真:(010)62733894
E-mail:cdxb@cau.edu.cn
网址:http://www.cdxb.org

印刷:北京科信印刷有限公司
国内总发行:北京报刊发行局
订阅:全国各地邮局(所)
国内邮发代号:80-135
国内每册定价:55.00 元
国外总发行:中国国际图书贸易
总公司
国外发行代号:MO1949

中国标准连续出版物号:

ISSN 1007-0435
CN 11-3362/S

基本参数:

CN11-3362/S * 1991 * b * A₁
* 310 * zh * P * 55.00 * 260
* 35 * 2023-01

目 次

专论与进展

- 生态文明建设背景下中国草原多维分类方法探讨 董世魁,唐芳林,平晓燕,等(1)
- 研究论文
- 高寒草甸土壤细菌群落多样性和共现性网络对牦牛觅食强度的响应 孟令旭,贾彩玲,许春雪,等(9)
- 祁连山岛状冻土活动层土壤氮库对模拟冻融响应 陈 哲,徐 巍,门 双,等(19)
- 白羊草 *BiMYB52* 基因的克隆及转基因拟南芥抗旱性表达分析 李春艳,钟 华,杜利霞,等(29)
- 青贮玉米蠕形菌的分离鉴定及其致病性分析 祁鹤兴,王海春,芦光新,等(40)
- 基于 ISSR 分子标记的紫云英种质资源遗传多样性及结构分析 张 梦,史鹏飞,刘春增,等(50)
- 沙葱萤叶甲 *GdHsp70-2, GdHsp70-3* 的克隆鉴定与表达谱分析 张宏玲,任 浩,田 羽,等(61)
- 镉在草地早熟禾中的分布和化学形态研究 崔 婷,王 勇,牛奎举,等(73)
- 狗牙根小尺度克隆多样性及空间遗传结构研究 苟甜甜,马艳娜,吉铁楠,等(81)
- 美洲狼尾草组织培养再生体系的建立 范欲航,许 悦,祝诗词,等(89)
- 黄苜蓿花部特征及繁育习性研究 范少茹,符佳豪,庄秋荣,等(96)
- 多效唑对高羊茅弱光下生长及其碳氮代谢的调控作用 刘柯宁,张力允,刘博文,等(105)
- 低磷胁迫对红豆草光合、叶绿素荧光及内源激素的影响 陈 洁,南丽丽,汪 堃,等(112)
- 干旱胁迫下白刺花幼苗根系生长和生理特性的响应 赵文武,赵 鑫,谢文辉,等(120)
- 独脚金内酯对干旱胁迫下黑果枸杞种子萌发和幼苗生理变化的影响 刘淑兰,李 进,马永慧,等(130)
- 胺鲜酯(DA-6)浸种对盐胁迫下白三叶种子萌发及抗盐性的影响 曹亦芹,程碧真,李 州(140)
- 藏沙蒿种质材料苗期抗旱性综合评价 王绮玉,刘 欢,仁增旺堆,等(148)
- 黄河源区六种草本植物根系抗拔力特征及其影响因素研究 王 程,胡夏嵩,刘昌义,等(157)
- 贺兰山低山区土壤种子库与地上植被关系分析 王雅芳,李国旗,石 云,等(166)
- 22 份百脉根种质资源表型数量性状的遗传多样性分析 谢文辉,赵文武,王雷挺,等(173)
- 竞争效应对红型豌豆蚜繁殖的影响 李 杨,杨燕芬(180)
- 紫花苜蓿/燕麦间作的光合特征及其对产量的调控效应 杨 航,赵雅姝,刘晓静(187)
- 红三叶个体水平异黄酮含量的差异及其形态特征和草产量比较研究 郝 宁,张晓明,穆赢通,等(196)
- 退化高寒草甸斑块根-土复合体特征研究 杜晨璐,乔一诺,赵理荣,等(202)
- 不同退化程度高寒草甸土壤团聚体及其有机碳分布特征 李林芝,马 源,张小燕,等(210)
- 不同措施下三江源区“黑土山”土壤治理效果分析 吴建丽,施建军,王晓丽,等(220)
- 宁夏云雾山典型草原半灌木扩张过程中植物种间联结性研究 晏昕辉,拓行行,李美慧,等(230)
- 荒漠草原区显热通量变化特征及源区分布 唐家琦,王成杰(239)
- 青藏高原不同退化梯度下植被蒸发的时空格局研究 刘长雨,谢保鹏,杨 洁,等(252)

欢迎投稿 欢迎订阅

《草地学报》是中国科协主管、中国草学会主办、中国农业大学承办的学术刊物,是了解草地科学前沿科技、创新成果和草业发展的重要窗口。刊登国内外草地科学研究及相关领域的新成果、新理论、新进展,以研究论文为主,兼发少量专稿、综述、简报和博士论文摘要,主要面向从事草地科学、草地生态、草地畜牧业和草坪业及相关领域的高校师生和科研院所、站的科研人员。稿件要求详见本刊《投稿须知》。

《草地学报》被国内外多家重要检索机构收录,入编北京大学图书馆和北京高校图书馆期刊工作研究会主持完成的《中文核心期刊要目总览》(2020 年版),2020 年复合影响因子为 2.238(据中信所 2021 版《中国科技期刊引证报告(核心版)》)。

本刊逢月末出版,国内外公开发售。国内邮发代号:80-135;国外代号:MO1949。每期定价 55 元,全年 660 元。若错过邮订时间,可直接向本刊编辑部订购(中国草学会会员订阅可优惠 30%)。

开户名:中国草学会 开户行:北京农商银行海淀新区支行农大分理处
账 号:0407030103000000056

ACTA AGRESTIA SINICA

No. 1, 2023

Vol. 31

Started in 1991 (Monthly)

Administration Agency

China Association for Science
and Technology

Sponsored by

Chinese Grassland Society
China Agricultural University,
Beijing 100193

Editor-in-Chief

WANG Kun

Responsible Editor

MIN Zhi-zhi, LIU Ting-ting,
PENG Lu-xi

Edited by

Editorial Board of A. A. S.

Tel. / Fax: 010-62733894

E-mail: cdx@cau.edu.cn

Website: <http://www.cdx.org>

Printed by

Beijing Kexin
Printing Co., Ltd.

Distributed by

Beijing Bureau for Distribution
of Newspapers and Journals

Domestic

All Local Post Offices in China
(Periodical No. 80-135)

Foreign

China International Book Trading
Corporation (P. O. Box 399, Beijing,
China) (Code: MO1949)

CONTENTS

Study on Multi-dimensional China's Grassland Classification in New Era of Ecological Civilization	DONG Shi-kui, TANG Fang-lin, PING Xiao-yan, et al(1)
Response of Soil Bacterial Community Diversity and Co-occurrence Network to Foraging Intensity of Yaks in Alpine Meadow	MENG Ling-xu, JIA Cai-ling, XU Chun-xue, et al(9)
Response of Soil Nitrogen Pools to A Simulated Freeze-Thaw Test in the Active Layer of Segregated Permafrost on the Qilian Mountains	CHEN Zhe, XU Wei, MEN Shuang, et al(19)
The Cloning <i>BiMYB52</i> Gene from <i>Bothriochloa ischaemum</i> and Analysis of Drought Resistance Expression of Transgenic <i>Arabidopsis thaliana</i> of that clone	LI Chun-yan, ZHONG Hua, DU Li-xia, et al(29)
Isolation, Identification and Pathogenicity Analysis of <i>Helminthosporioid</i> Fungi from Silage Maize	QI He-xing, WANG Hai-chun, LU Guang-xin, et al(40)
Genetic Diversity and Structure Analysis of Germplasm Resources Based on ISSR Markers in <i>Astragalus sinicus</i> L.	ZHANG Meng, SHI Peng-fei, LIU Chun-zeng, et al(50)
Cloning, Identification and Expression Profiling Analysis of <i>GdHsp70-2</i> , <i>GdHsp70-3</i> Genes in <i>Galeruca daurica</i>	ZHANG Hong-ling, REN Hao, TIAN Yu, et al(61)
Study on Distribution and Chemical Forms of Cd in <i>Poa pratensis</i>	CUI Ting, WANG Yong, NIU Kui-ju, et al(73)
Study on Fine-scale Clonal Diversity and Spatial Genetic Structure of Bermudagrass	GOU Tian-tian, MA Yan-na, JI Yi-nan, et al(81)
Construction of Tissue Culture Regeneration System of Pennisetum Glaucum	FAN Yu-hang, XU Yue, ZHU Shi-ci, et al(89)
Studies on Floral Syndrome and Breeding Habits of <i>Iris pseudacorus</i>	FAN Shao-ru, FU Jia-hao, ZHUANG Qiu-rong, et al(96)
Regulatory Effect of Paclobutrazol on Growth and Carbon/Nitrogen Metabolism of Tall Fescue under Low Light	LIU Ke-ning, ZHANG Li-yun, LIU Bo-wen, et al(105)
Effects of Low Phosphorus Stress on Photosynthesis, Chlorophyll Fluorescence and Endogenous Hormones of Sainfoin	CHEN Jie, NAN Li-li, WANG Kun, et al(112)
Response of Root Growth and Development and Physiological Characteristics of <i>Sophora davidii</i> under Drought Stress	ZHAO Wen-wu, ZHAO Xin, XIE Wen-hui, et al(120)
Effects of Strigolactones on Seed Germination and Seedling Physiological Changes of <i>Lycium ruthenicum</i> under Drought Stress	LIU Shu-lan, LI Jin, MA Yong-hui, et al(130)
Effects of the Seed Soaking with DA-6 on Germination Characteristics and Stress Tolerance of White Clover under Salt Stress	CAO Yi-qin, CHEN Bi-zhen, LI Zhou(140)
Comprehensive Evaluation of Drought Resistance of <i>Artemisia wellbyi</i> Germplasm at the Seedling Stage	WANG Qi-yu, LIU Huan, RENZENG Wang-dui, et al(148)
Study on the Characteristics and Influence Factors of Root Pull-out Resistance of Six Grasses in the Source Region of the Yellow River	WANG Cheng, HU Xia-song, LIU Chang-yi, et al(157)
Analysis of Relationship between Soil Seed Bank and Aboveground Vegetation in Low Mountain Area of Helan Mountain	WANG Ya-fang, LI Guo-qi, SHI Yun, et al(166)
Genetic Diversity Analysis of 22 <i>Lotus corniculatus</i> Germplasm Resources Based on Phenotypic Quantitative Traits	XIE Wen-hui, ZHAO Wen-wu, WANG Lei-ting, et al(173)
Effect of Competition on Reproduction of Pea Aphid (Red Morph)	LI Yang, YANG Yan-fen(180)
Effects on Photosynthesis Characteristics and Yield Regulations in the Alfalfa/Oat Intercropping	YANG Hang, ZHAO Ya-jiao, LIU Xiao-jing(187)
Comparative Study on Isoflavone Content, Morphological Characteristics and Grass Yield of Red Clover at Individual Level	HAO Ning, ZHANG Xiao-ming, MU Yin-tong, et al(196)
The Characteristics of Root-Soil Complex in Patches of Alpine Meadow	DU Chen-lu, QIAO Yi-nuo, ZHAO Li-rong, et al(202)
Distribution Characteristics of Soil Aggregates and its Organic Carbon with Different Degradation Degrees in Alpine Meadow	LI Lin-zhi, MA Yuan, ZHANG Xiao-yan, et al(210)
Analysis of Soil Management Effect of Different Measures on "Bare Land of Mountain" in the Three Rivers Source Region	WU Jian-li, SHI Jian-jun, WANG Xiao-li, et al(220)
Interspecific Association of Plants in the Process of the Subshrub Expansion in Typical Steppe of Yunwu Mountain, Ningxia	YAN Xin-hui, TUO Hang-hang, LI Mei-hui, et al(230)
Characterization of Variations of Sensible Heat Flux and Its Source Area Distribution over the Desert Steppe	TANG Jia-qi, WANG Cheng-jie(239)
Spatial and Temporal Patterns of Vegetation Evapotranspiration under Different Degradation Gradients in the Qinghai-Tibet Plateau	LIU Chang-yu, XIE Bao-peng, YANG Jie, et al(252)
Effect of Filling Density on Quality and Aerobic Stability of <i>Leymus chinensis</i> and Alfalfa Silage	LIU Yi-chao, SI Qiang, LIU Ming-jian, et al(263)
Effects of Different Nitrogen Fertilizers on Performance and Nutrient Uptake of <i>Echinochloa frumentacea</i> in Saline-alkali Land	JIA Xiao-hui, ZHANG Feng-ju, XIE Xiao-wei, et al(272)
Effect of Lactic Acid Bacteria and Molasses on the Silage Quality and Bacterial Diversity of Paper Mulberry	SUN Rong, LIU Yue, CHEN Ting, et al(280)
Effects of Storage Years on Seed Germination, Seedling Growth and Physiological Characteristics of White Clover	LYU Yan-min, HUA Mei, ZHANG Xiao-ming, et al(287)
Effects of Irrigation Frequency and Fertilizer Application Rate on Production Performance and Photosynthetic Characteristics of Sweet Sorghum	NI Wang, LIANG Dan-ni, SHI Xing-wei, et al(294)
Effects of Wheat Bran and Lactic Acid Bacteria on Baled Oat Silage Quality and Aerobic Stability in the Alpine Region of Northwest Sichuan	LI Hai-ping, GUAN Hao, JIA Zhi-feng, et al(302)