

中文核心期刊
中国科技核心期刊
中国农业核心期刊
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 3 期

第 27 卷

2019 年 5 月

1991 年创刊(双月刊)

主管:中国科学技术协会

主办:中国草学会

承办:中国农业大学

主 编:王 堃

编辑部主任:邵新庆

责任编辑:闵芝智,陈力玉

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:cdxlb@cau.edu.cn

http://www.cdxlb.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

国内每期定价:25.00 元

国外总发行:中国国际图书贸易

总公司

国外发行代号:1949(BM)

刊号:ISSN 1007-0435

CN 11-3362/S

基本参数:

CN11-3362/S * 1991 * b * A₄

* 270 * zh * P * 25.00 * 500

* 35 * 2019-05

目 次

专论与进展

疯草类植物在美国天然草地的分布及其动物中毒病研究现状与展望 浮晶晶,郭亚洲,黄文颖,等(519)

生物地毯治沙工程—生物结皮现状的研究进展 麻云霞,王月林,李钢铁,等(531)

研究论文

白羊草叶片和根系干旱胁迫下 microRNAs 差异表达分析 李春艳,董 洁,钟 华,等(539)

2,4-表-油菜素内酯对低温胁迫下西藏野生垂穗披碱草幼苗抗氧化保护和渗透调节的影响 普布卓玛,罗艺岚,高金柱,等(547)

AMF 与坪床基质对“兰引 3 号”结缕草草坪磷元素有效性及其流失的影响 彭 雪,程俊康,辛国荣(553)

柳枝稷 *PvbZ1P8* 基因的克隆与表达分析 王伟伟,王勇锋,张舒梦,等(560)

日本结缕草 *ZjNAC2* 转录激活验证及互作蛋白的初步筛选 姜红岩,檀鹏辉,滕 珂,等(567)

盐碱胁迫下紫花苜蓿叶片蛋白组的初步分析 李 波,方志坚,郭婷婷,等(574)

盐碱胁迫和温度对猪毛蒿种子萌发的影响 张通颖,盛 军,王柔懿,等(581)

放牧对羊草根际土壤线虫群落及区系的影响 乌尼尔,张 晶,海 棠(589)

2,4-D 丁酯在裸燕麦中的残留消解动态及其对带壳率的影响 琚泽亮,赵桂琴,柴继宽(596)

外源腐胺与亚精胺提高假俭草低温胁迫耐受性的研究 刘南清,林绍艳,沈益新(603)

岩溶区 4 种紫花苜蓿免耕栽培生长表现 雷会义,覃宗泉,郭中茂,等(612)

铝胁迫对紫花苜蓿不同种质材料的影响及综合评价 姜 娜,唐 敏,韩 博,等(620)

外源 NO 对 NaCl 胁迫下红砂幼苗生长和生理特性的影响 贾向阳,种培芳,张玉洁,等(628)

年刈割次数对科尔沁沙地不同秋眠级紫花苜蓿品种产量、品质和越冬率的影响 杨秀芳,梁庆伟,娜日苏,等(637)

围封对晋北赖草草地土壤碳氮磷生态化学计量特征的影响及其与植被多样性的关系 赫凤彩,张婧斌,邢鹏飞,等(644)

围栏封育和放牧对盐池荒漠草原植物群落特征的影响 吴 婷,宋乃平,陈晓莹,等(651)

新疆沙尔套山天然草地主要混合牧草营养指标近红外光谱分析 张凡凡,尉小霞,段宏伟,等(661)

不同放牧强度对拉萨河谷温性草原植物群落和物种多样性的影响 向明学,郭应杰,古桑群宗,等(668)

高寒区不同农艺措施对燕麦人工草地各生育期土壤碳氮储量与碳氮比的影响 刘文辉,张永超,梁国玲,等(675)

植被退化对杂海湿地土壤有机碳库及碳库管理指数的影响 马维伟,李 广,宋 捷,等(687)

延庆区荒滩地土壤理化性质及其对植物多样性的影响 李晓娜,张微微,赵春桥,等(695)

基于能值生态足迹与灰色预测模型的西藏可持续性评价 李文龙,魏 巍,宋 瑜,等(702)

CENTURY 模型在川西北高原草原的适用性研究 陈 超,李秋月,郭 斌,等(711)

河南省天然草地资源区划的研究 郭 孝,李 黎,王成章,等(719)

高寒区草地-家畜优化配置研究——以青海省玛沁县 1 牧户为例 孙金金,焦 婷,李亚娟,等(728)

成本收益、政策认知对农牧户禁牧补助政策满意度的影响 周升强,赵 凯,张 瑞(736)

技术研发

白三叶初始密度对种群动态和生产力的影响 李 莉,王元素(745)

株行对比对滴灌苜蓿种子产量及其产量构成因子的影响 沙栢平,李 雪,谢应忠,等(751)

种植密度对科尔沁沙地饲用燕麦产量和品质的影响 林志玲,朱铁霞,李天琦,等(760)

降水变化对杨林郭勒草原土壤动物数量的影响 姜路帆,李亚衡,杨进荣,等(766)

研究专报

层积、激素和光照对千屈菜种子萌发的影响 徐小博,王英哲,闫 冬,等(775)

乌丹蒿花粉形态二型性特征的观察 蔡 萍,宛 涛,伊卫东,等(779)

紫色土丘陵坡地土壤水溶性有机碳对植被恢复的响应及其与土壤因子的关系 杨满元,杨 宁,欧阳美娟,等(784)

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》(2011 年版),2012 年影响因子为 1.202(据中信所 2013 版《中国科技期刊引证报告(核心版)》)。

本刊逢单月月末出版,国内外公开发售。国内邮发代号:80-135;国外代号:Q1949。每期定价 25 元,全年 150 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

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

CHEN Li-yu

Edited by

Editorial Board of A .A .S .

Tel . /Fax :010-62733894

E-mail :cdxb@cau.edu.cn

http://www.cdxb.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 :1949BM)

CONTENTS

The Distribution of Locoweed in Natural Grassland in the United States and the Current Status and Prospects of Research on Animal Poisoning FU Jing-jing, GUO Ya-zhou, HUANG Wen-ying, et al (519)
Research Progress on the Status of Biological Crust-A Kind of Biological Carpet Sand Control engineering MA Yun-xia, WANG Yue-lin, LI Gang-tie, et al (531)
MicroRNAs Expressions Profiling of Bothriochloa ischaemum Leaves and Roots under Drought Stress LI Chun-yan, DONG Jie, ZHONG Hua, et al (539)
Effect of 2,4-epibrassinolide on Antioxidant Defense and Osmotic Adjustment of Elymus nutans Under Low Temperature Stress PUBU Zhuo-ma, LUO Yi-lan, GAO Jin-zhu, et al (547)
Effect of Arbuscular Mycorrhizal Fungi and Potting Media on Phosphorus of Zoysia japonica 'Lanyin No. 3' Turf PENG Xue, Cheng Jun-kang, XIN Guo-rong (553)
Cloning and Expression Analysis of Switchgrass PtbZIP8 Gene WANG Wei-wei, WANG Yong-feng, ZHANG Shu-meng, et al (560)
Verification of Transcriptional Activation and Preliminary Screening of Interaction Proteins of Zoysia japonica ZjNAC2 JIANG Hong-yan, TAN Peng-hui, TENG Ke, et al (567)
Preliminary Analysis of Alfalfa Leaf Proteome under Salt-alkali Stress LI Bo, FANG Zhi-jian, WU Ting-ting, et al (574)
Effects of Salt-alkali Stress and Temperature on Seed Germination of Artemisia scoparia VZHANG Tong-ying, SHENG Jun, WANG Rou-yi, et al (581)
Effects of Grazing on Nematode Community and Fauna in Rhizosphere of Leymus chinensis WU Ni-er, ZHANG Jing, HAI Tang (589)
Residual Dynamics of 2,4-D Butyl Ester in Naked Oat and Its Effects on Hull Rate under Field Application JU Ze-liang, ZHAO Gui-qin, CHAI Ji-kuan (596)
Effects of Exogenous Putrescine and Spermidine on Cold Tolerance of Centipede Grass LIU Nan-qing, LIN Shao-yan, SHEN Yi-xin (603)
Growing Performance of 4 Varieties of Alfalfa Cultivated Without-tillage in Karst Area LEI Hui-yi, QIN Zong-quan, GUO Zhong-mao, et al (612)
Effects of Aluminum Stress on Different Germplasm Materials of Alfalfa and Its Comprehensive Evaluation JIANG Na, TANG Min, HAN Bo, et al (620)
Effects of Nitric Oxide on Physiological Characteristics and Growth of Reaumuria songorica Seedling under NaCl Stress JIA Xiang-yang, CHONG Pei-fang, ZHANG Yu-jie, et al (628)
The Effects of Cutting Times on Yield, Quality and Winter Survival Rate of the Different Fall Dormancy Rating Alfalfa in Keerqin Sandy Land YANG Xiu-fang, LIANG Qing-wei, NA Ri-su, et al (637)
Effects of Enclosure on the Eco-stoichiometric Characteristics of Carbon, Nitrogen and Phosphorus in Leymus secalinus Grassland on the North Shanxi and its Relationship with Plants Diversity HE Feng-cai, ZHANG Jing-bin, XING Peng-fei, et al (644)
Effects of Enclosure and Grazing on the Characteristics of Plant Communities in Desert Steppe of Yanchi WU Ting, SONG Nai-ping, CHEN Xiao-ying, et al (651)
The Near Infrared Spectrum Analysis of the Main Mixed Herbage Nutrition in Natural Grassland, Shaertao Mountain, Xinjiang ZHANG Fan-fan, YU Xiao-xia, DUAN Hong-wei, et al (661)
Effects of Grazing Intensity on Plant Community and Species Diversity of Temperate Steppe in Lhasa River Valley XIANG Ming-xue, GUO Ying-jie, GU Sang-qunzong, et al (668)
Effects of Different Agronomy Treatments on the Oat Cultivation Grassland Soil Carbon and Nitrogen Stock and the Carbon /nitrogen Ratio LIU Wen-hui, ZHANG Yong-chao, LIANG Guo-ling, et al (675)
Effect of Vegetation Degradation on Soil Organic Carbon Pool and Carbon Pool Management Index in the Gahai Wetland, China MA Wei-wei, LI Guang, SONG Jie, et al (687)
Plant Diversity and Soil Physicochemical Properties in the Wasteland of Yanqing District LI Xiao-na, ZHANG Wei-wei, ZHAO Chun-qiao, et al (695)
Sustainable Development of Tibet Based on Emery Ecological Footprint Model LI Wen-long, WEI Wei, SONG Yu, et al (702)
Validation and Adaptability Evaluation of Grassland Ecosystem Model CENTURY in the Northwest Plateau of Sichuan Province CHEN Chao, LI Qiu-yue, GUO Bin, et al (711)
Studies on Henan Province Rangeland Resource Regional Planning GUO Xiao, LI Li, WANG Ceng-zhang, et al (719)
A Study on the Optimal Allocation of the Alpine Pasture Grassland-Livestock - A Case of a Herder in Maqin County, Qinghai Province SUN Jin-jin, JIAO Ting, LI Ya-juan, et al (728)
Impacts of Cost-Benefit, Policy Recognition on Farmers and Herdsmen's Satisfaction with the Subsidy Policy of Banning Grazing ZHOU Sheng-qiang, ZHAO Kai, ZHANG Rui (736)
Effects of Plant Density on the Population Dynamics and Productivity of White Clover LI Li, WANG Yuan-su (745)
Effect of Row Spacing Ratio on Seed Yield and Yield Components in Drip Irrigation of Alfalfa SHA Bai-ping, Li Xue, XIE Ying-zhong, et al (751)
Responses of Production and Quality of Avena sativa to Planting Density in Horqin Sandy Land LIN Zhi-ling, ZHU Tie-xia, LI Tian-qi, et al (760)
Effect of Precipitation Change on the Quantity of Soil Fauna in Xilingol Grassland JIANG Lu-fan, LI Ya-heng, YANG Jin-rong, et al (766)
Study on the Germination Characteristics of Lythrum chiesas L. Seeds XU Xiao-bo, WANG Ying-zhe, YAN Dong, et al (775)
The Dimorphic Characteristics of Pollen Morphology of Artemisia wudanica CAI Ping, WAN Tao, YI Wei-dong, et al (779)
Response of Soil Dissolved Organic Carbon to Re-vegetation and the Relationships between It and Soil Factors in Hillslope Land with Purple Soils YANG Man-yuan, YANG Ning, OUYANG Mei-juan, et al (784)