

原书缺封面

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 4 期

第 22 卷

2014 年 7 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:周 禾

编辑部副主任:李美娟

英文编辑:刘云霞

编 务:田素华

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

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)

ISSN 1007-0435

刊号:CN 11-3362/S

基本参数:

CN11-3362/S * 1991 * b * A₄

* 242 * zh * P * 25.00 * 600

* 38 * 2014-7

目 次

前沿研究

云雾山天然草地 30 年恢复演替过程中优势草种生态位动态 史晓晓,程积民,于 飞,等(677)

传统牧区草地农业替代战略—基于 6 大牧区的研究 李蕊超,金藏玉,林慧龙(685)

专论与综述

第 12 届国际草坪会议以及中美草坪业及草坪研究的初步比较 王克华,孙 彦,周 禾(691)

21 世纪锦鸡儿属植物研究进展 关林婧,马成仓(697)

研究论文

基于高分遥感数据校正的 MODIS 草地生物量监测模型精度评价 胡远宁,冯琦胜,陈思宇,等(706)

火烧和施氮对内蒙古半干旱草原土壤微生物群落碳源利用潜力的影响 么中元,张乃莉,崔喜艳(713)

北方农牧交错带草木犀属外来植物沿公路分布和扩展的影响因素探讨 陈 超,黄 顶,王 堃,等(722)

四川洛须白唇鹿自然保护区种子植物区系分析 齐代华,周 旭,孙治宇,等(728)

渭北旱塬区土壤质量对人工植被恢复模式的响应 金晶炜,苏纪帅,白 于,等(737)

黄土高原草地植被土壤团聚体特征与可蚀性分析 曾全超,李娅芸,刘 雷,等(743)

不同放牧强度对西藏邦杰塘高寒草甸土壤种子库的影响 王向涛,高 洋,魏学红,等(750)

施肥种类对青海草地早熟禾草地土壤呼吸的影响 闵星星,马玉寿,李世雄,等(757)

山西不同居群野生草地早熟禾的坪用性状评价 董晓燕,王保平,朱慧森,等(762)

不同株高的柠条生物量分配格局及其估测模型构建 李 刚,赵 祥,张宾宾,等(769)

铅、镉胁迫对饲用高粱生长及铅、镉吸收和累积的影响 刘大林,曹喜春,张 华,等(776)

减胁迫对塔乌库姆冰草的萌发及生理响应 张一弓,贾纳提,李学森,等(783)

冷胁迫对 2 种垂穗披碱草生长和生理特性的影响 付娟娟,刘 建,孙永芳,等(789)

黑沙蒿对自身种子萌发与幼苗生长的化感作用研究 高 姗,廖超英,高智辉,等(796)

中国芒属植物抗寒性初步研究 杜希夷,肖 亮,蒋建雄,等(803)

土壤非胁迫对高丹草幼苗生长和叶片叶绿素荧光特性的影响 丁俊男,张会慧,迟德富(808)

无芒隐子草叶表皮微形态对放牧强度的响应 殷国梅,张英俊,赵艳红,等(816)

高寒草地针茅内生菌 265ZY3 的生物学特性研究及其鉴定 王玉琴,薛 莉,杨成德,等(822)

⁶⁰Co-γ 辐射扁穗牛鞭草剂量筛选及表型变异研究 曾 捷,黄琳凯,张新全,等(828)

黄花苜蓿高频植株再生体系建立的研究 李 娟,张万军,王 涛(834)

柳枝稷木质型水通道蛋白基因 *PvPIP1* 的克隆和序列分析 石 锦,李 仁,王晋芳,等(840)

鸭茅根组织实时定量 PCR 分析中候选内参基因的筛选 蒋晓梅,严海东,张新全,等(847)

寄主植物对沙葱蛴甲幼虫生长发育及取食的影响 吴 翔,周晓榕,庞保平,等(854)

技术研发

呼伦贝尔地区野生山野豌豆种子硬实破除方法研究 徐丽君,徐大伟,杨桂霞,等(859)

密度对不同类型青贮玉米饲用产量及营养价值的影响 路海东,薛吉全,郝引川,等(865)

基施氮肥对不同生育期紫花苜蓿营养含量及分配的影响 胡华锋,介晓磊,郭 孝,等(871)

贮藏方式对苜蓿草捆营养品质的影响 王志军,格根图,冯晓骋,等(878)

高寒牧区不同燕麦品种饲草产量及品质的研究 李春喜,叶润荣,周玉碧,等(882)

褐色中脉饲草高粱品种产量品质与抗逆性分析 李 源,游永亮,赵海明,等(889)

菊苣种子丰产栽培模型分析 白 玲,马 啸,白史且,等(897)

践踏强度对高羊茅与结缕草混播草坪质量的影响 李 庆,尹淑霞(903)

研究专报

长江 2 号多花黑麦草主要形态性状的回交改良分析 王绍飞,黄琳凯,张新全,等(907)

正交设计优化黑褐苔草 ISSR-PCR 反应体系 胡延萍,王 莉,包 蕊,等(911)

多花黑麦草与水稻秸秆混合青贮品质的研究 李君临,张新全,王 柱,等(915)

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:040703010300000056

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

LIU Yunxia LI Mei-juan
TIAN Su-hua

Edited by

Editorial Board of A. A. S.

Tel. / Fax: 010-62733894

E-mail: cdx@cau.edu.cn

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:1949BM)

CONTENTS

Niche Dynamics of Dominant Species during the 30 Years Restoration Process of Natural Grassland in Yunwu Mountain SHI Xiao-xiao, CHENG Ji-min, YU Fei, *et al* (677)

Grassland Agriculture Substitution Strategy: Based on the Research of the Six Pastoral Areas LI Rui-chao, JIN Cang-yu, LIN Hui-long(685)

The 12th International Turfgrass Research Conference and a Preliminary Comparison of Turfgrass Industry, Particularly Turfgrass Research, between China and the United States WANG Ke-hua, SUN Yan, ZHOU He(691)

The Research Progress of *Caragana* Species during the 21st Century GUAN Lin-jing, MA Cheng-cang(697)

Accuracy Evaluation of the MODIS Grassland Biomass Monitoring Model Based on the Correction of High-resolution Remote Sensing Data HU Yuan-ning, FENG Qi-sheng, CHEN Si-yu, *et al* (706)

Impacts of Fire and N Addition on Microbial C Utilization Potential in A Semi-arid Grassland of Inner Mongolia YAO Zhong-yuan, ZHANG Nai-li, CUI Xi-yan(713)

Distribution and Dispersal of Alien Sweet Clover along Roadside in An Agro-pastoral Ecotone of Northern China CHEN Chao, HUANG Ding, WANG Kun, *et al* (722)

Flora of Seed Plants in the Luoxu White-lipped Deer Nature Reserve, Sichuan Province QI Dai-hua, ZHOU Xu, SUN Zhi-yu, *et al* (728)

Response of Soil Quality to Artificial Vegetation Restoration Patterns in the Arid Area of Northern Weihe River Basin JIN Jing-wei, SU Ji-shuai, BAI Yu, *et al* (736)

Study on Soil Aggregate Stability and Soil Erodibility in the Grassland Vegetation of the Loess Plateau Region ZENG Quan-chao, LI Ya-yun, LIU Lei, *et al* (743)

Effects of Different Grazing Intensities on the Soil Seed Bank of Alpine Meadow in the Bangjietang Research Station of Tibet WANG Xiang-Tao, GAO Yang, WEI Xue-Hong, *et al* (750)

Effects of Different Fertilizations on the Soil Respiration of *Poa pratensis* 'Qinghai' Grassland MIN Xing-xing, MA Yu-shou, LI Shi-xiong, *et al* (757)

Turf Quality Evaluations of Different Wild *Poa pratensis* Populations in Shanxi Province DONG Xiao-yan, WANG Bao-ping, ZHU Hui-sen, *et al* (762)

Biomass Allocation Pattern and Estimation Model Building of *Caragana korshinskii* with Different Plant Heights LI Gang, ZHAO Xiang, ZHANG Bin-bin, *et al* (769)

Effects of Pb, Cd Stress on the Growth and Pb, Cd Uptake of Forage Sorghum LIU Da-lin, CAO Xi-chun, ZHANG Hua, *et al* (776)

Seed Germination and Physiological Responses of *Agropyron cristatum* 'Tawukumu' under Alkali Stress ZHANG Yi-gong, Jianati, LI Xue-sen, *et al* (783)

Effects of Cold Stress on the Growths and Physiological Characteristics of Two *Elymus nutans* Varieties FU Juan-juan, LIU Jian, SUN Yong-fang, *et al* (789)

Allelopathic Effects of *Artemisia ordosica* on Its Seed Germination and Seedling Growth GAO Shan, LIAO Chao-ying, GAO Zhi-hui, *et al* (796)

Study on the Cold Resistance of *Miscanthus Andersson* in China DU Xi-yi, XIAO Liang, JIANG Jian-xiong, *et al* (803)

Effects of Phenanthrene Polluted soils on the Growth and Chlorophyll Fluorescence Characteristics in Leaves of *Sorghum bicolor* × *S. sudanense* Seedlings DING Jun-nan, ZHANG Hui-hui, CHI De-fu(808)

Leaf Epidermal Micromorphology of Awnless Cleistogenes at different Grazing Intensities YIN Guo-mei, ZHANG Ying-jun, ZHAO Yan-hong, *et al* (816)

Identification and Determination of Biological Characteristics of Endophytic Bacteria 265ZY3 from *Stipa capillata* in the Alpine Grasslands WANG Yu-qin, XUE Li, YANG Cheng-de, *et al* (822)

Study on Phenotype Mutation of *Hemarthria compressa* and Dose Selection of ⁶⁰Co-γ Irradiation ZENG Jie, HUANG Lin-kai, ZHANG Xin-quan, *et al* (828)

Establishing A Highly Efficient Plant Regeneration System of *Medicago falcata* L. LI Juan, ZHANG Wan-jun, WANG Tao(834)

Cloning and Sequence Analysis of the Plasma Membrane Aquaporins Gene *PoPIP1* in Switchgrass SHI Jin, LI Ren, WANG Jin-fang, *et al* (840)

Candidate Reference Gene Selection for Quantitative RT-PCR Normalization in Orchardgrass (*Dactylis glomerata* L.) Root Tissue JIANG Xiao-mei, YAN Hiao-dong, ZHANG Xin-quan, *et al* (847)

Effects of Host Plants on Feeding Amount, Growth and Development of *Galeruca daurica* Joannis Larvae (Coleoptera: Chrysomelidae) HAO Xiang, ZHOU Xiao-rong, PANG Bao-ping, *et al* (854)

Methods to Break Hard Seed of Wild *Vicia amoena* in Hulunbeier XU Li-jun, XU Da-wei, YANG Gui-xia, *et al* (859)

Effects of Planting Densities on the Yields and Forage Nutritive Values of Different Corn (*Zea mays* L.) Varieties LU Hai-dong, XUE Ji-quan, HAO Yin-chuan, *et al* (865)

Effects of Se Application As Basal Fertilizer on the Nutrient Contents and Distribution Rates of Alfalfa at Different Growth Stages HU Hua-feng, JIE Xiao-lei, GUO Xiao, *et al* (871)

Effects of Storage Style on the Nutritional Quality of Alfalfa Bale WANG Zhi-jun, Gegentu, FENG Xiao-cheng, *et al* (878)

Research on Forage Yields and Qualities of Different Oat (*Avena sativa*) Varieties in Alpine Pastoral Regions LI Chun-xi, YE Run-rong, ZHOU Yu-bi, *et al* (882)

Analysis on the Yield, Quality and Stress Resistance of Brown Midrib Forage Sorghum Varieties LI Yuan, YOU Yong-liang, ZHAO Hai-ming, *et al* (889)

Cultivation Model of High Seed Yield of Chicory BAI Ling, MA Xiao, BAI Shi-qie, *et al* (897)

Impacts of Different Traffic Intensities on the Quality of Tall Fescue and Zoysiagrass Mixture Turf LI Qing, YIN Shu-xia(903)

A Study on Improving the Main Morphological Traits of Annual Ryegrass by Backcross WANG Shao-fei, HUANG Lin-kai, ZHANG Xin-quan, *et al* (907)

Optimizing ISSR-PCR System of *Carex atrofusca* Using Orthogonal Design HU Yan-ping, WANG Li, BAO Rui, *et al* (911)

A Study on Quality of Italian Ryegrass and Rice Straw Mixed Silage LI Jun-lin, ZHANG Xin-quan, YU Zhu, *et al* (915)

原书缺封底