

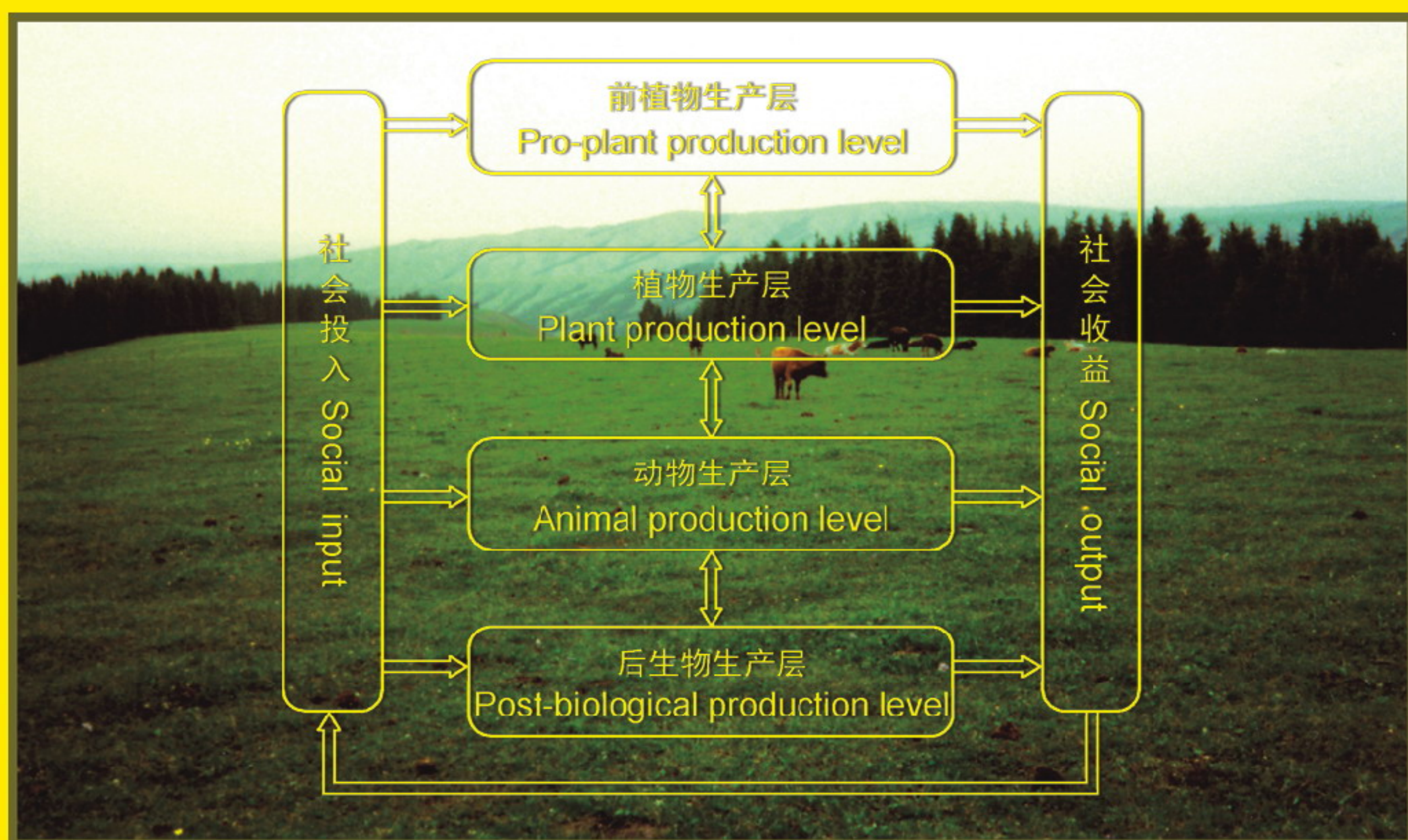
全国中文核心期刊  
中国科学引文数据库 (CSCD) 核心期刊  
英国 CABI 文献数据库来源期刊  
中国科技论文统计源期刊 (中国科技核心期刊)  
百种中国杰出学术期刊



ISSN 1004-5759  
CN 62-1105/S

# 草业学报

ACTA PRATACULTURAE SINICA



第28卷 Vol.28

12/2019

中国草学会

CAOYE XUEBAO

# 草业学报

(CAOYE XUEBAO)

2019 年 12 月 第 28 卷 第 12 期 (月刊)

## 目 次

### 研究论文

- 用食物当量评价草地农业的生产力 ..... 娄珊宁, 侯扶江, 任继周(1)
- 蒿类荒漠草地土壤种子库特征及其萌发植物多样性对降水增加的响应 ..... 田梦, 孙宗玖, 李莹, 等(17)
- 氮素添加对贝加尔针茅草原土壤团聚体碳、氮和磷生态化学计量学特征的影响 ..... 李明, 秦洁, 红雨, 等(29)
- 新型草坪模拟践踏器的研制及暖季型草坪草耐践踏性评价 ..... 刘天增, 王旭盛, 张巨明(41)
- 十种荒漠植物种子萌发对温度的响应 ..... 白梦杰, 陶奇波, 韩云华, 等(53)
- 酸、镉胁迫对金丝草种子萌发、幼苗生长及亚显微结构的影响 ..... 赵雅曼, 陈顺钰, 李宗勋, 等(63)
- 锰胁迫对黄花草种子萌发及幼苗生理生化特征的影响 ..... 肖泽华, 李欣航, 潘高, 等(75)
- 甘露糖对白三叶抗旱性、糖及糖醇类代谢物积累的影响 ..... 李州, 彭燕, 尹淑霞, 等(85)
- 紫花苜蓿 *MsZAT10* 基因的克隆及其在烟草中的功能验证 ..... 孙亚男, 林茹, 潘晓阳, 等(94)
- 温室条件下 AM 真菌和禾草内生真菌对根腐离蠕孢侵染黑麦草的影响 ..... 邓杰, 李芳, 段廷玉(103)
- 尼龙袋法评价香蕉叶单宁对瘤胃降解特性的影响 ..... 李志威, 赵静雯, 沈思聪, 等(114)
- 全株玉米青贮、谷草和羊草组合全混合日粮饲喂干奶前期奶牛对其围产期生产性能和  
血液生化及免疫指标的影响 ..... 任伟忠, 高艳霞, 李秋凤, 等(124)
- 刈割茬次和生育期对苜蓿青贮品质的影响 ..... 李菲菲, 张凡凡, 王旭哲, 等(137)
- 不同类型燕麦农艺和饲草品质性状分析 ..... 王茜, 李志坚, 李晶, 等(149)
- 巴林右旗干草原主要牧草的营养成分季节动态与饱和链烷烃组成结构的研究  
..... 李宝栋, 邓宇, 孙海洲, 等(159)

### 综合评述

- 紫花苜蓿镰刀菌根腐病研究进展 ..... 方香玲, 张彩霞, 南志标(169)
- 转录组测序在林草植物抗逆性研究中的应用 ..... 高慧娟, 吕昕培, 王润娟, 等(184)

### 研究简报

- 基于 DNDC 模型的高寒草甸土壤有机碳含量动态研究 ..... 王多斌, 籍常婷, 林慧龙(197)
- 添加剂对籽粒苋与豆粕混合青贮品质的影响 ..... 李顺, 穆麟, 曾宁波, 等(205)
- 不同添加剂处理对小黑麦和黑麦青贮营养品质和发酵品质的影响 ..... 代寒凌, 田新会, 杜文华, 等(211)

### 相关信息

- 《草业学报》2019 年总目次 ..... (220)

封面图片:框图引自任继周主编《草地农业生态系统通论》 背景为新疆天山牧场(张自和摄) 封面设计为张雪邛,史春燕

期刊基本参数:CN62-1105/S\*1990\*m\*A4\*232\*zh\*P\*¥25.00\*2000\*20\*2019-12\*n

## CONTENTS

|                                                                                                                                                                                                                                         |                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Evaluation of grassland agricultural productivity by food equivalent unit .....                                                                                                                                                         | LOU Shan-ning, HOU Fu-jiang, REN Ji-zhou(1)                 |
| Response to increasing precipitation in <i>Artemisia</i> desert grassland of soil seed bank composition and species diversity of germinating plants .....                                                                               | TIAN Meng, SUN Zong-jiu, LI Ying, <i>et al</i> (17)         |
| Effects of nitrogen addition on ecological stoichiometric characteristics of carbon, nitrogen and phosphorus in <i>Stipa baicalensis</i> grassland soil aggregates .....                                                                | LI Ming, QIN Jie, HONG Yu, <i>et al</i> (29)                |
| Development of a novel traffic simulator and evaluation of warm-season turfgrass traffic tolerance in field experiments .....                                                                                                           | LIU Tian-zeng, WANG Xu-sheng, ZHANG Ju-ming(41)             |
| Germination response to temperature of ten desert plant species .....                                                                                                                                                                   | BAI Meng-jie, TAO Qi-bo, HAN Yun-hua, <i>et al</i> (53)     |
| Effects of acid and cadmium stresses on seed germination, seedling growth, and submicroscopic structure of <i>Pogonatherum crinitum</i> .....                                                                                           | ZHAO Ya-man, CHEN Shun-yu, LI Zong-xun, <i>et al</i> (63)   |
| Effects of manganese stress on seed germination, and seedling physiological and biochemical characteristics of <i>Cleome viscosa</i> .....                                                                                              | XIAO Ze-hua, LI Xin-hang, PAN Gao, <i>et al</i> (75)        |
| Effects of exogenous mannose application on drought tolerance, sugars, and sugar alcohol accumulation in white clover .....                                                                                                             | LI Zhou, PENG Yan, YIN Shu-xia, <i>et al</i> (85)           |
| Cloning and function analysis in tobacco of MsZAT10 from alfalfa .....                                                                                                                                                                  | SUN Ya-nan, LIN Ru, PAN Xiao-yang, <i>et al</i> (94)        |
| Effects of AM fungus and grass endophyte on the infection of <i>Lolium perenne</i> by the pathogen <i>Bipolaris sorokinianum</i> in a greenhouse .....                                                                                  | DENG Jie, LI Fang, DUAN Ting-yu(103)                        |
| Effects of tannins in banana leaves on in situ digestion in dairy cows ...                                                                                                                                                              | LI Zhi-wei, ZHAO Jing-wen, SHEN Si-cong, <i>et al</i> (114) |
| Effects of whole corn silage, millet straw and <i>Leymus chinensis</i> combined in total mixed ration fed Holstein cows in the early dry period on its performance and blood biochemical and immune indicators inperinatal period ..... | REN Wei-zhong, GAO Yan-xia, LI Qiu-feng, <i>et al</i> (124) |
| Effects of cutting date and crop growth stage on alfalfa silage quality ...                                                                                                                                                             | LI Fei-fei, ZHANG Fan-fan, WANG Xu-zhe, <i>et al</i> (137)  |
| Evaluation of agronomic and forage quality traits of a range of oat cultivars .....                                                                                                                                                     | WANG Qian, LI Zhi-jian, LI Jing, <i>et al</i> (149)         |
| The seasonal nutritional dynamics of major forages composition of the steppe of Bahrain Right Banner and its forming structure of the saturated chain alkane research .....                                                             | LI Bao-dong, DENG Yu, SUN Hai-zhou, <i>et al</i> (159)      |
| Research advances in <i>Fusarium</i> root rot of alfalfa ( <i>Medicago sativa</i> ) ...                                                                                                                                                 | FANG Xiang-ling, ZHANG Cai-xia, NAN Zhi-biao(169)           |
| Application of RNA-seq technology in research on herb, shrub and tree stress resistance .....                                                                                                                                           | GAO Hui-juan, LÜ Xin-pei, WANG Run-juan, <i>et al</i> (184) |
| A ‘denitrification-decomposition’ (DNDC) model evaluation of alpine meadow soil carbon response to climate change .....                                                                                                                 | WANG Duo-bin, JI Chang-ting, LIN Hui-long(197)              |
| Effects of additives on the quality of mixed silage of amaranth and soybean meal .....                                                                                                                                                  | LI Shun, MU Lin, ZENG Ning-bo, <i>et al</i> (205)           |
| Effects of silage additives on nutritional quality and silage quality of triticale and rye .....                                                                                                                                        | DAI Han-ling, TIAN Xin-hui, DU Wen-hua, <i>et al</i> (211)  |