

畜牧—研究报告

NaCl胁迫对3种鹅观草幼苗耐盐性研究

陈景芋<sup>1</sup>,解继红<sup>2</sup>,徐柱<sup>1</sup>,杨凯<sup>1</sup>,尹军<sup>1</sup>

1中国农业科学院草原研究所, 呼和浩特010010; 2新疆农业大学草业与环境科学学院, 乌鲁木齐830052;

3内蒙古草原工作站, 呼和浩特010020; 4满洲里市市政公用事业管理局, 内蒙古自治区满洲里市021400

摘要:

摘要: 【研究目的】探讨随着盐分浓度的递增对鹅观草幼苗生物学指标的影响规律, 为今后鹅观草属植物耐盐育种提供科学依据并为解决大西北草原盐碱化这一问题提供优良牧草资源; 【方法】以三种鹅观草为供试材料, 利用不同浓度NaCl溶液对其进行胁迫处理7d, 测定它们的株高、根长、叶长、叶宽、地上部分鲜重及干重、地下部分鲜重及干重等苗期生物学指标; 【结果】试验研究表明: 低盐浓度对三种鹅观草幼苗生物学指标影响较小; 随着盐浓度高的增大, 三种鹅观草各项指标均受到严重抑制, 且达到极显著差异 (P<0.01); 【结论】综合分析各项生物学指标, 认为三种鹅观草幼苗耐盐敏感性: 偏穗鹅观草最耐盐, 大芒鹅观草最敏盐, 肃草介于二者之间。

关键词: 鹅观草; NaCl胁迫; 幼苗; 生物学指标

The Study of Salt Tolerance of Three Species Seedling of Roegneria

Abstract:

Abstract: 【OBJECTIVE】 This article investigate biological indicators influence rule of salt tolerance on Roegneria Seedling, provide scientific basis for Roegneria breeding, and provide fine forage resource to solute the question of northwest grassland alkalization. 【METHOD】 Different concentrations of NaCl solution on the three species of Roegneria (3-leaf stage) for stress treatment 7d, measured their biological indicators such as height, root length, leaf length, leaf width, shoot fresh weight and dry weight, fresh weight of the underground sections and dry weight. 【RESULTS】 Experimental studies have shown that: low-salt concentration on the three species of Roegneria biological indicators little effect on seedling; with a high salt concentration increases, the three species of Roegneria indicators are severely inhibited, and reached a very significant difference (P < 0.01). 【CONCLUSION】 Comprehensive analysis of biological indicators that the three species of salt-sensitive Roegneria seedlings: the seedling of (R. komarovii (Nevski) Nevski) exhibit the greatest salt tolerance, and the seeding of (R. turczaninovii (Drob) Nevski var. macrathera Ohwi) exhibit the worst salt sensitivity and (R. stricta Keng f. stricta) be placed in the middle.

Keywords: Roegneria caucasica NaCl stress seedling biological indicators

收稿日期 2010-07-02 修回日期 2010-09-07 网络版发布日期 2011-02-18

DOI:

基金项目:

中央级公益性科研院所基本科研业务费专项资金(中国农业科学院草原研究所)资助项目

通讯作者: 解继红 中国农业科学院草原研究所, 呼和浩特010010

作者简介:

作者Email: xiejihong223@163.com

参考文献:

本刊中的类似文章

扩展功能

本文信息

Supporting info

PDF(771KB)

[HTML全文]

参考文献[PDF]

参考文献

服务与反馈

把本文推荐给朋友

加入我的书架

加入引用管理器

引用本文

Email Alert

文章反馈

浏览反馈信息

本文关键词相关文章

鹅观草; NaCl胁迫; 幼苗; 生物学指标

本文作者相关文章

陈景芋

解继红

徐柱

杨凯

尹军

PubMed

Article by Chen,J.X

Article by Xie,J.H

Article by Xu,z

Article by Yang,k

Article by Yun,j

