

前植物生产层

不同光照强度对几种狗牙根形态与草坪品质的影响

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摘要:

采集野生狗牙根(*Cynodon dactylon*)种源4份, 用Tifway 419作对照, 在不同光照强度下, 对地上部形态变化与草坪品质的影响进行研究, 为开发使用野生狗牙根种质资源提供依据。结果表明, 在光照强度减弱至68%和38.5%的情况下, 直立茎的高度、茎节间长度和叶长沿纵向延长生长相对较快, 并且叶面积扩大, 与光照强度呈负相关关系; 茎直径、叶宽则横向收缩变小生长, 与光照强度呈正相关关系。由于茎、叶形态变化的影响, 草坪品质下降, 两者间呈明显正相关关系。狗牙根1号、4号茎叶形态变化小, 草坪品质高, 是耐阴性较强的乡土草种, 几乎可与对照种Tifway 419媲美; 狗牙根3号变化最大, 草坪品质最差。

关键词: 光照强度 形态变化 草坪品质 耐阴性

Effects of light intensity on morphological change and lawn quality of wild *Cynodon dactylon*

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Abstract:

In order to provide reasons for developing and using wild *Cynodon dactylon* germplasm resources, the morphological changes of aerial parts of 4 germplasms of wild *C. dactylon* under different light intensities were compared with Tifway 419 (an introduced variety of *C. dactylon*) in this study. The effects of light intensities on their lawn qualities were also evaluated. The results showed that when the illumination was reduced from 100% to 68.0% and 38.5%, the erect stem height, the stem internode length and the leaf length increased and the leaf size enlarged. There were negative correlations between light intensities and above modalities. The stem diameter and the leaf width decreased, which had positive correlations with light intensities. The lawn qualities of wild *C. dactylon* were downgraded due to the morphological changes of the stems and leaves. The changes on the stems and leaves of *C. dactylon* G1 and G4 were the minimum so that their lawn qualities were higher with strong shade tolerance. However, the stems and leaves of *C. dactylon* G3 were changed much under different light intensities, so its lawn quality was the worst among the four germplasms.

Keywords: light intensity morphological change lawn quality shade tolerance

收稿日期 修回日期 网络版发布日期

DOI:

基金项目:

通讯作者:

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