研究论文

野生扁穗牛鞭草无性系构件组成及生物量结构变异性

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摘要 对60份野生扁穗牛鞭草的无性系种群构件数量、质量性状及生物量结构进行比较分析,结果说明:不同种群构件性状与数量呈现出变异性,叶长、叶宽、单蘖叶片数、无性系叶片数的变异系数分别为24.95%、20.00%、14.12%、43.56%; 茎直径、节直径、节间长、单蘖节数、直立茎长度、匍匐茎长度、直立茎数、匍匐茎数的变异系数分别为21.11%、22.42%、20.10%、12.14%、46.73%、20.14%、72.76%、37.97%; 根系深度、根系分布范围、分蘖面积的变异系数分别为19.81%、37.65%、33.68%; 花序长、花序宽、花序厚、单蘖花序数、直立茎生殖蘖比例、匍匐茎生殖蘖比例的变异系数分别为13.33%、13.42%、14.80%、36.10%、118.96%、81.44%。不同种群构件生物量结构变异性丰富,叶生物量、茎生物量、根生物量、花序生物量变异系数分别为78.51%、91.66%、45.64%、192.24%; 构件的数量差异高于性状差异,无性系种群差异主要体现在分蘖能力与空间拓展能力上。野生资源生态型变异性和对环境的适应性,为优异性状选择、品种选育、资源开发利用提供了丰富的物质基础。

关键词 扁穗牛鞭草;野生资源;构件;生物量;变异性

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Diversity of population component and biomass structure for cloned *Hemarthria compressa*<u>地本文推荐给朋友</u> <u>加入我的书架</u>

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Abstract The objectives of this study are to determine the quantitative, qualitative characters and biomass structure of population component for sixty cloned wild Hemarthria Compressa. The results showed that diversities existed among quantitative characters in the different population components. The coefficient of variation (CV) for leaf length, leaf width, leaf number of each tiller and leaf number of each cloned plant was 24.95%, 20.00%, 14.12%, 43.56%, respectively. The CV for stem diameter, eustipes diameter, eustipes length, eustipes number of each tiller, the length and number of stem and stolon was 21.11%, 22.42%, 20.10%, 12.14%, 46.73%, 20.14%, 72.76%, 37.97%, respectively. The CV for root length, root distribution, roots area were 9.81%, 37.65%, 33.68%, respectively. The CV for the length, width and thickness of inflorescence, inflorescence number of each tiller, the ratio of stem to seminal branch and the ratio of stolon to seminal branch were 13.33%, 13.42%, 14.80%, 36.10%, 118.96%, 81.44%, respectively. Meanwhile, the significant diversity for biomass structure in different population components in this study was found to be great. The CV of biomass for leaf, stem, root and inflorescence was 78.51%, 91.66%, 45.64%, 192.24%, respectively. The genetic diversity among the ecotype and environmental suitability of these ecotypes are very beneficial for improved cultivars.

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Key words Hemarthria compressa wild resource component biomass dive

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