

闽楠容器苗各器官生物量的分配格局及水分特征研究

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摘要

以1.5年生闽楠(*Phoebe bournei*)容器苗为研究对象,揭示其在不同高度阶段各器官的含水率及生物量的分配格局,为闽楠的培育及利用提供理论依据。研究表明:①随着高度的增加,闽楠容器苗的生物量及各器官生物量也随之增加,各器官生物量分配大小表现为根生物量>叶生物量>茎生物量>枝生物量;其中茎生物量分配随着高度的增加而增加,叶生物量分配则是随着高度的增加呈现先增加后减少的变化曲线,根生物量分配随着高度增加而先减少后增加。苗高与基径,树高、基径与叶、干、根、茎(干+枝)生物量以及地上、地下和单株生物量都具有极显著相关关系;树高、基径与枝生物量相关关系不显著;②高度为20~25 cm的闽楠幼苗其茎、叶的含水率达到最大峰值50%,其变化曲线相对比较平稳,而幼苗高度处于35~45 cm时根部含水率的最大峰值是61%,变化曲线振幅相对较大;③植株根含水率与茎、叶、地上生物量积累呈显著正相关,而叶含水率则与植物各器官生物量呈显著负相关。

关键词 [闽楠](#); [容器苗](#); [含水率](#); [生物量](#); [分配格局](#)

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Biomass Allocation Pattern and Water Characteristics of Each Component of *Phoebe bournei* Container Seedling

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Abstract

In this research, the moisture content and biomass distribution of 1.5-year old *Phoebe bournei* container seedling at different height stages were measured and analyzed. The results showed that: (1)With the increase of seedling height, the biomass and its components in *P. bournei* container seedling increased. The biomass allocated in the order of root biomass>leaf biomass>stem biomass>branch biomass. With the increase of seedling height, the biomass of stem increased, while the biomass of leaf first increased and then decreased, and the biomass of root first decreased and then increased. The biomass as well as its components are significant correlated to basal diameter (D) and height (H) except branch. (2)The moisture contents of stem and leaf reach peak values while the seedling height was between 20 and 25 cm, the moisture content of root reach peak value while it between 35 and 45 cm. (3)Root moisture content as well as leaf, stem and aboveground biomass are significant positive correlated, while a significant negative correlation between leaf moisture content and different organs biomass was identified.

Key words [Phoebe bournei](#) [container seedling](#) [moisture content](#) [biomass allocation](#)

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