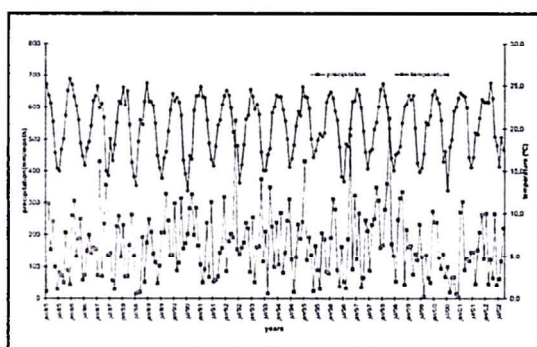
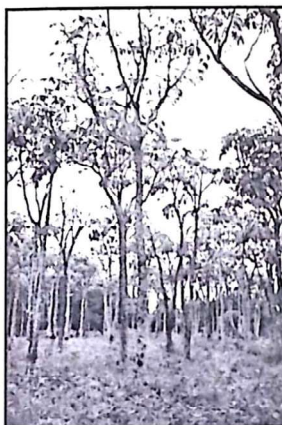


Tree rings and growth periodicity of tropical trees in Brazil

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INTRODUCTION

The great pressure in native forests for wood has given the urgency to determine the parameters for sustainable forest management. Unfortunately, most of basic information about tropical native species is still unknown. As an alternative, researchers have been implanted experimental areas, to analyse silvicultural, provenance and growth aspects of native species. One gap of information is the knowledge of the rhythm and growth periodicity of tropical trees. The investigation of annual growth rings is used as a tool to obtain such information.

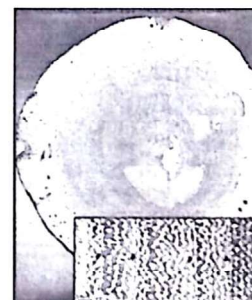


MATERIAL AND METHODS

Wood samples of native species were taken from trees under planted stands established in Quedas do Iguaçu, State of Paraná, Brazil. Wood anatomical characteristics of the native trees, such as *Peltophorum dubium*, *Balfourodendron riedelianum*, *Cariniana legalis* and *Centrolobium tomentosum*, were carried out with the objective of investigating the tree ring structure and growth periodicity.

RESULTS

All species showed annual rhythmic growth, and it was observed growth zones clearly, distinguished by wood anatomical features, such as early and latewood with thin and thick-walled fiber cells; boundaries of parenchyma bands and different pores size distribution. The understanding of growth characteristics and periodicity related to environmental conditions are a potential tool for growth rate determination and wood formation characteristics related to growth conditions.



Centrolobium tomentosum

