

GEOSTATISTIC APPLIED TO MANAGEMENT OF TEAK FOREST STANDS, IN PERIODS BEFORE SELECTIVE THINNING, IN THE MATO GROSSO STATE

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- **ABSTRACT:** *With outstanding importance in the forest sector and perspective of return on investment in the short and medium time, the teak stands in Brazil need of information to guide the management of culture to local conditions. However, the apparent homogeneity of the spatial structure of forest stands is an aspect that makes it difficult to observe the significant variations along forested areas. Thus, this study aimed to model and map the spatial variability of volume and basal area of teak stands, pre-selective thinning, by geostatistical analyzes. Through permanent plots allocated in teak stands Mato Grosso State, ordinary kriging and cokriging to estimate the forests volumes at the fifth to eighth years old, before the selective thinnings. The exponential and spherical models described with statistical precision the spatial patterns of dendrometric variables, respectively the fifth and the eighth year of stands, by which values range between 1,000-2,000 m were obtained. Furthermore, the spatial modeling of volume and basal area, as support for traditional forest inventories, made it possible to recommend management practices, which aim to maximize production and structural quality of the forest stands.*
- **KEYWORDS:** *Stand volume; basal area; spatial variability; cokriging.*

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