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RESEARCH ARTICLE

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## Growth and productivity of *Melia dubia* under different plant density

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**ABSTRACT :** Different density experiment was conducted to know the effect on growth and productivity of *Melia dubia*. The trial was laid out with different spacing regimen as per statistical design. The growth observations were recorded at different intervals of time *viz.*, 42, 45, 48 and 51 months after planting. The results revealed significant difference among different planting densities and maximum was recorded in planting density of 714 trees/ha (46.85 cm, 10.59 m; 50.14 cm, 10.99 m; 52.99 cm,11.22 m and 55.76 cm,11.43 m) for both girth (cm) and height (m), respectively for all the time interval. However, the total stand volume (m³/ha) in all the time interval was significantly superior in case of planting density of 2500 trees/ha (125.00 m³/ha, 148.33 m³/ha, 165.83 m³/ha and 189.25 m³/ha). Based on the results of the present experiment it is concluded that, the planting density of 2500 trees/ha exhibited significant stand volume compare to other planting density. These findings have significant relevance to get maximum productivity under monoculture block plantation system.

**KEY WORDS:** Girth, Height, Volume, Spacing, Planting density

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