



Dynamics in Biomass Expansion Factor, Root-to-Shoot Ratio and Wood Quality Parameters in Different Girth Class of *Gmelina arborea* Roxb.

Sanjeev K. Chauhan, Krishan K. Gumber¹, Rajni Sharma² and Harmeet S. Saralch¹

CAZRI - Regional Research Station, Leh Ladakh -194 101, India
¹Department of Forestry and Natural Resources, ²Department of Botany
Punjab Agricultural University, Ludhiana-141 004, India
E-mail: chauhanpau@rediffmail.com

Abstract: Trees of different diameter classes were harvested to assess the dynamics in biomass, root: shoot ratio and some wood characteristics. A perusal of data showed that in the 20-30 cm girthclass, the proportion of stem (53.67%) and root (25.61%) in total biomass was far more than the branch (12.56 %) and leaf (8.16 %) but with increase in girth class, the mean proportion of stem and root increased further i.e., 67.22% and 19.13%, respectively than branch (8.86%) and leaves (4.79%) in 120-130cm girthclass. The values of Biomass expansion factor (BEF) ranged from 1.36 to 1.17, showing decreasing trend as the range of the girth classes increased. Root: shoot ratio varied from 0.18 to 0.36 and per cent wood shrinkage decreased as the girth class increased.

Keywords: *Gmelina arborea*, BEF, Biomass, Root : shoot ratio, Shrinkage, Specific
