



RESEARCH PAPER

Characterization of finger millet (*Eleusine coracana* L.) recombinant inbred lines for total biomass

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Abstract : Crop productivity is very much dependent on the biomass and its partition to economic parts in the plant system. In the present study, 150 recombinant lines were characterized for variability in total biomass. The mapping population was classified on the basis of biomass as low and high biomass types. Except SLA, other biometric traits varied significantly. Assessment of contribution of physiological traits other than the canopy cover that determine the variability in biomass is best done when genotypes with similar leaf area but differing in biomass are compared. All the traits varied significantly between low and high biomass types. To know the interrelationship among traits that contribute to the total biomass of the plant was also ascertained through correlation studies. A positive correlation was observed between various root, shoot associated traits and the total biomass but root to shoot ratio showed a negative relationship with biomass. Apart from root and shoot dry weight, a strong positive correlation was observed between the leaf area and the biomass suggesting that the photosynthetic surface area contributes significantly to the biomass production.

Key Words : Biomass, Finger millet, Mapping population

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