

Combining Ability Analysis for Fodder Yield and its Components in Pearl Millet (*Pennisetum glaucum*)

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ABSTRACT

The study with five male-sterile lines, eight pollinator lines, 40 F₁ crosses, which were generated through Line x Tester matings and one standard check PCB141 was conducted to assess the combining ability of newly developed inbred lines. The data was recorded on 9 morphological characters *viz.*, plant height, number of tillers per plant, leaves per plant, leaf length, leaf breadth, stem thickness, days to 50 per cent flowering, green fodder yield per plant and dry matter yield per plant. Three quality parameters: crude protein, oxalic acid and total ash were also estimated for all the genotypes. Analysis of variance for combining ability for different characters revealed significant differences among the female parents for all the characters except oxalic acid. Male parents also differed significantly for all the characters except oxalic acid and crude protein. Whereas for hybrids mean squares were significant for all the traits except for days to 50 % flowering and plant height. The cross PB 408A X PIB 258 was found to be very good specific combiner for green fodder yield per plant and was the second based on mean performance of hybrid.

Key words : Combining ability, Fodder pearl millet.