

Variation and correlation of agronomic traits of napiergrass ⁽¹⁾

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Abstract

Napiergrass (*Pennisetum* spp.) is one of important forage crops grown in Taiwan. Thirty five varieties (lines) of napiergrass and their hybrids were used as materials for determining the variation among twelve agronomic traits. The results showed those of the coefficients of variation of the agronomic traits ranged from 5.9-47.8%. The tiller number (TN) was the highest with 47.8%, followed by the fresh weight per clone (FWC) with 24.1% and the leaf length (LL) was the lowest with 5.9% among all materials. According to the principal component analysis, napiergrass varieties (lines) could be classified into four groups. Group 1 and 2 were tall type with higher plant height and FWT. The former had bigger leaf area (LN) and thickness (LT) than the latter. Group 3 and 4 were dwarf type with short stem and more TN. The former had bigger stem diameter (SD) and LA than the latter. It is useful with the diverse sources of napiergrass germplasms to choose the optimum parents for cross breeding.

Key words: Napiergrass, Agronomic traits, Principal component analysis.

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