



Short communication

## Nutritional and antinutritional profiling of mulberry genetic resources amenable for animal feed

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### Abstract

The present investigation aimed to provide nutritional and anti-nutritional profiling for fodder quality of twenty-one mulberry genotypes. The genotypes were evaluated for various nutritional and anti-nutritional factors *viz.*, moisture content, crude protein, crude fiber, crude fat, carbohydrate, ash, phenol, tannin, nitrate, saponin and flavonoids. Results showed that the crude protein varied significantly ( $P \leq 0.05$ ) from 7.79 (ME-0663) to 34.06% (ME-0220). The mulberry genotype MI-0663 had the highest moisture content (77.53%) and ME-0001 had the lowest moisture content (64.72%). Crude fat content was high in ME-0109 (8.50%) and low in MI-0034 (2.49%). Crude fibre differed significantly from 7.55% (MI-0615) to 21.85% (MI-0536) and the carbohydrate ranged between 14.39 to 21.62%. Polyphenols recorded below the toxic level range varied from 0.72% (ME-0220) to 2.92% (ME-0025) and tannin contents significantly ( $P \leq 0.05$ ) varied from 1.23% (ME-0220) to 3.32% (ME-0025). The nitrate content was high in MI-0663 (0.165%) and low in MI-0017 (0.026%). This study indicated that mulberry leaves had high protein content with low anti-nutritional factors, and these could be exploited as potential feed resources for livestock.

**Keywords:** Anti-nutritional factors, Fodder, Minerals, Mulberry, Nutritional factors