

Variation in Proximate Principles of *Melia dubia* Fodder across Different Sources of Gujarat, India**S.S. Malek^{*1}, N.S. Thakur¹, V.R. Patel², R.P. Gunaga¹, H.T. Hegde¹ and Y.A. Garde³**¹ College of Forestry, Navsari Agricultural University, Navsari, Gujarat-396450, India,² Vanbandhu veterinary college, Gandhinagar, Navsari campus, Navsari, Gujarat-396450, Indian³ N. M. College of Agriculture, Agricultural University, Navsari, Gujarat-396450, India,

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Keywords: *Melia dubia*, leaf fodder, proximate principles, nutritive value, livestock**1. Introduction**

Numerous tree species have been evaluated for their leaf fodder and pod feed quality and has been promoted to reduce feed costs by replacing the concentrates. *M. dubia* is being advocated as good alternate fodder species. It has been reported that its drupes can be fed to live stock (Sukhadiya et al 2019, 2022). However, in Gujarat it is not evaluated for its leaf fodder nutritional quality. The study was carried out to assess variation in *M. dubia* leaf fodder nutritional composition of different provenances of south Gujarat.

2. Material and methods

Representative leaves samples were collected from different provenances of south Gujarat. Oven dried samples were analyzed for its proximate attributes, minerals matter and cell wall composition as per procedure given by AOAC (2016).

3. Results and discussion

The study revealed substantial variations ($p < 0.05$), in proximate principles in *M. dubia* leaf fodder across 5 sampled sites in Gujarat. Nitrogen (N), crude protein (CP), ether extract (EE) and crude fibre (CF) content was significantly maximum at site-5 (Dinbari) with respective values of 1.62, 10.14, 3.23 and 16.81 per cent, respectively. The maximum (15.68%) ash content (AC) was determined in leaf samples collected from site-2 (Nanapondha). Conversely, highest OM (87.53%) was recorded from site-3 (Mahal). Acid in soluble ash (AIA) was recorded maximum (1.27%) at site-4 (Mulchond). Leaf nitrogen free extract (NFE) was highest (29.83%) at site-1 (Navsari). Lowest NFE (57.28%) was recorded in samples collected from site-5 (Dinbari). The hierarchical cluster analysis indicated that among all the five sites, site-5 looking to be diverse in term of proximate principles of leaf fodder than others. Hence, this population may be used for further selection and improvement.

References

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