

**Qualitative and Quantitative phytochemical analysis of *Eclipta alba* collected from different geographical locations using Spectrophotometry, TLC/HPTLC and RP-HPLC.**

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*Eclipta alba* belongs to (Family- Asteraceae) is a well known medicinal plant, commonly known as Bhringraj or Maka. There are several reported literature available regarding its use in the management of hair loss, hepatic problems, bronchial asthma and cough, vitiligo, eye disease, immunomodulation, wounds, antihyperglycemic activity, antimicrobial activity etc. Collection, drying and storage are important factors which influence not only the quality and phytochemical content in the raw material but also affect its pharmacological activity. The current work focuses on the comparative phytochemical profile of plant materials collected from different geographical locations. With the help of Spectrophotometer, TLC/HPTLC and RP-HPLC an attempt is made to evaluate differences in phytochemical profiles (i.e. fingerprint pattern) of plant materials collected from different geographical locations. Single marker based approach is also used to estimate, Luteolin content in the plant by a validated RP-HPLC method. The current work reports the comparative qualitative and quantitative phytochemical fingerprint profile and Luteolin content in plant material collected from different locations. The geographical location showing maximum and minimum contents of luteolin in the plant raw material is also reported. A comparison of results obtained in various analytical methods is also discussed.

**Keywords:** *Eclipta alba*, Phytochemical profile, Spectrophotometre, TLC/HPTLC, RP-HPLC, Luteolin.