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# **Advanced Herbal Technology**

P. H. Gadhire, S. K. Bais, Jagdish S. Gejage

Fabtech College of Pharmacy, Sangola, Solapur, Maharashtra, India

**Abstract**: Due to their numerous benefits, herbal medications are increasingly attracting people's attention. As treatment options for many disorders, herbal formulations have gained widespread acceptance. Over 80% of the world's population relies on herbal products and medications for a healthy lifestyle, despite the fact that the majority of these uses are unconventional. As the usage of herbal goods has increased, so have the misuse and adulteration of the products, which has disappointed customers and producers and, in some cases, had disastrous results. The creation of reliable analytical techniques that can profile the phytochemical composition with accuracy, including quantitative studies of marker/bioactive chemicals and other important elements, is a significant challenge for scientists. Standardization is a critical essential step in the development of quality assurance process, a consistent chemical profile, or simply a constant biological activity for the manufacture and manufacturing of herbal medications. The numerous convectional approaches and more recent advancements are covered in the current review article. Recent developments have been noted in the areas of DNA fingerprinting, metabolomics, differential pulse polarography, chemometrics, X-ray diffraction, etc. Contributions of chromatographic and capillary electrophoresis methods to the standardisation of herbal medications are also described.

Keywords: DNA fingerprinting, chromatographic methods, herbal medicines, and standardisation

## Objectives

- 1: Recognize raw materials as sources of herbal medications from cultivation to finished products
- 2. Be familiar with the WHO and ICH guidelines for the assessment of herbal medications.
- 3. Be aware with nutraceuticals, natural sweeteners, and herbal cosmetics
- 4. Value the patenting of natural medicines and GMP.

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