

# Analysis of Mineral Content in Medicinal Plants from the Konkan Region

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**Abstract:** The present paper deal with the mineral analysis of some medicinal important plants *Dalbergia sissoo*, *Vitex nugundo* and *Chlorophytum borivilianum*. Conducted on Jan. 2024. The dried leaves was acid digested as mentioned by Toth et al.,(1948) method, minerals such as Potassium, Calcium, Iron. One of the main problems of medicine, Ayurvedic system is lack of solid scientific evidence regarding safety, efficacy, quality of practices and their precise molecular mechanisms. However, many Ayurvedic preparations appear to demonstrate significant success in treatment and cure of complex diseases. Purpose: In order to develop a stronger basis for appreciating the curative effects of Ayurvedic medicinal plants, the aim of the present study was to investigate their elemental composition, which is very often overlooked in biochemical assays.

**Keywords:** Ayurvedic *Dalbergia sissoo*, *Vitex nugundo* and *Chlorophytum borivilianum*

## I. INTRODUCTION

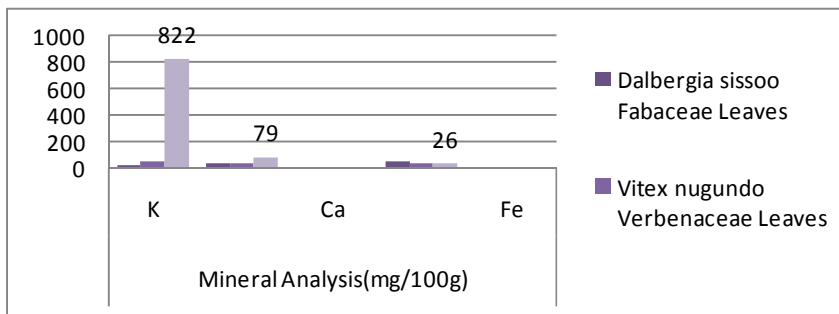
Medicinal Plants have significant role during pregnancy, birth and postpartum care in many rural areas of the world. Many plant extract have been showed to inhibit growth of microorganism. These extracts consists chemical and usually considered to a play role a defense reactions of plant, towards infections by pathogenic microorganism (Fawcett,1976) . Plants and plant-derived products are part of health care system since ancient human civilizations. The need of new chemical entities (NCEs) for health care is explored and served through the plant sources. In India, the history of health care goes back to 5000 years b.c., when health care (Hegde, 2007)

## II. MATERIALS AND METHODS

Plant material are collected from village of vihoor, Raigad district. Plant selected for the present study *Dalbergia sissoo*, *Vitex nugundo* and *Chlorophytum borivilianum*. Fresh leaves collected and dried under room temperature. The dried leaves are grained in to coarse and used for further investigation. Estimation of different inorganic elements by following the method of Toth et al 1948.

## III. RESULTS AND DISCUSSION

| Plant Name                       | Family      | Plant Part | Mineral Analysis(mg/100g) |      |       |
|----------------------------------|-------------|------------|---------------------------|------|-------|
|                                  |             |            | K                         | Ca   | Fe    |
| <i>Dalbergia sissoo</i>          | Fabaceae    | Leaves     | 20.6                      | 28   | 47.86 |
| <i>Vitex nugundo</i>             | Verbenaceae | Leaves     | 44.8                      | 25.9 | 30.11 |
| <i>Chlorophytum borivilianum</i> | Aspargaceae | Leaves     | 822                       | 79   | 26    |



Represents The quantitative account of minerals in the leaves of *Dalbergia sissoo*, *Vitex nugundo* and *Chlorophytum borivilianum* represented in above table 1. These values are also depicted in graph 1. The analysis of various elements in leaves indicated that K, Ca, Fe etc. were present in maximum amount mineral contents highest in *Chlorophytum borivilianum* as compared *Vitex nugundo* and *Dalbergia sissoo*. Calcium plays a vital role in building of bones and teeth in our body. Besides it, calcium is also essential for nerves and muscles. Plasma calcium has a role in blood coagulation. This is correlated with the results of Njoku and Akumefula (2007), who recorded 1.310 % calcium in the leaves of *Spondias mombin*. Iron plays an important role in the oxygen transport to the cells. It is found in a protein called hemoglobin which carries oxygen from lungs to all over the body, to each and every cell. It has an ability to donate and accept electrons. The iron content was in leaves of *Canthium coromandelicum* by (Shaikh F.Y and Ghatge M.M 2018) as similar to above plants leaves. Bhogaonkar (2014) reported 315mg/100g iron content in *F. racemosafruits*

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