



**Mineral Composition and Vitamin Estimation in wild Edible Vegetables  
 from Jalgaon District of Maharashtra**

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**Abstract :**

Vitamins and minerals analysis of some wild edible fruits from Jalgaon District of Maharashtra were assessed and results revealed that cassia tora, Momordica dioica, Colocasia esculenta are rich source of calcium and iron magnesium potassium, Vitamin A and C.

**Key words :** Wild edible plants, Vitamins, minerals,

**1. Introduction :**

The present paper contribute to our knowledge of the mineral and vitamin content of three wild edible plants. The use of herbs and plants as food as well as medicine is a universal phenomenon. Wild edible Plants are the good source of essential nutrients and minerals that contribute to the well being of human being. The present investigation is focused on nutritional evaluation of minerals and vitamins in the leaves of the wild edible plants. Wild edible fruits and vegetables are rich source of vitamins and minerals many of the wild edible vegetables are available seasonally. In present paper cassia tora, Momordica dioica and Colocasia esculenta fruits are useful for treatment of rheumatism. These plants are very nutritious cooked as vegetable specially in rainy season and it is potential source of food. It is very popular for its vitamins and minerals content even sold in local markets also cooked vegetable is eaten in all over Khandesh for joint pain, rheumatism.

**2. Materials and Methods :**

**2.1 Collection of Plant material :** The fresh young leaves of cassia tora, Colocasia esculenta and fruits of Momordica dioica were collected and were used as a source of plant material for the present investigation. This material was collected in local forest area near fields and open area in rainy season then it was washed and shade dried for about 10 days. These dried leaves were ground to the coarse powder using a mechanical grinder. The powdered sample was used to determine the mineral analysis and Vitamins content.

**2.2 Mineral Analysis:** In a crucible, 0.5gm of powdered sample was placed in the muffle furnace and heated at 580°C for 3 hours. The obtained ash was cooled in a dessicator, cooled and the sample was digested at high temperature with 10ml of concentrated Nitric acid, 4ml of Perchloric acid and 1ml of Sulphuric acid. The process was continued until it becomes the clear solution and cooled. The contents in the tube were transferred to 50 ml volumetric flask and the volume was made up to 50 ml with distilled water. The final solution was utilized for the estimation of minerals such as Ca, Fe, Mg, Na, K, Zn, Mn, S, P by Atomic Absorption Spectroscopy.

**2.3 Estimation of Vitamins:** Vitamin C content estimated by Maye et al (1995), Vitamin E by alpha tocopherol (Backer et al 1980) and Pro vitamin A i.e. carotenoids by Arnon 1949

Table 1 : Mineral content in wild Edible plants

Sr. No.	Mineral	Name of the Plants mg/ 100 gm dry weight		
		Cassia tora	Colocasia esculenta	Momordica dioica
1	Sodium	1.05	9 mg	1.43 mg
2	Potassium	3.4	22.2 mg	3.3 mg
3	Calcium	23 mg	12.2 mg	15.43
4	Phosphorus	0.35 mg	0.38 mg	0.54 mg
5	Magnesium	0.2 mg	1.89 mg	7.8 mg
6	Zinc	0.46	0.20 mg	0.34 mg
7	Iron	0.14 mg	0.27 mg	0.12 mg
8	Copper	—	0.15 mg	—
9	Magnese	—	0.23 mg	0.24 mg

Table 2 : Showing Qualitative Estimation Vitamins in wild Edible plants



Sr. No.	Name of the vitamin	Name of the Plant and presence of Vitamins		
		Cassia tora	Colocasia esculenta	Momordica dioica
1	Vitamin A	+++	+	+
2	Vitamin C	+++	++	++
3	Vitamin E	+	++	-

#### Conclusion :

*Cassia tora*, *Colocasia esculenta* and *Momordica dioica* are good nutritive value and may be used as popular seasonal vegetable as it has good nutritive value. It also found to contain a good amount of various macro nutrients and micro elements in appreciable quantities. This plant would be a promising source of minerals vitamins and fiber and may be recommended as nutritive vegetables to people suffering from malnutrition and deficiency of many minerals and vitamins. Moreover, the minerals present in the leaves found to satisfy the RDA requirements. The presence of an optimal level of nutrients in the plant at right proportions could help in gain healthy life style and also to overcome deficiency of vitamins and mineral at low cost.

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