

NOTE**Comparative Study of Vitamins Nutrient
from *Marsilea quadrifolia* Linn.**K.D. JADHAO[†] and M.P. WADEKAR**Department of Chemistry, Government Vidarbha Institute of
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The present study deals with the study of availability of vitamin nutrients from *M. quadrifolia* Linn. Fresh as well as shade dried material was used for estimation of vitamin B₁ (thiamine), vitamin B₂ (riboflavin) and vitamin C (ascorbic acid).

Key Words: *Marsilea quadrifolia*, Fluorometer, Spectrophotometer, Vitamin.

Nutrition is the provision to cells of organism to support life. Many common health problems can be prevented or alleviated with good nutrition. Some nutrients are required on a regular basis, while others are needed less frequently. Poor health can be caused by an imbalance of nutrients, whether an excess or a deficiency. Availability of vitamin nutrients in regular diet is very important. Vitamins are required to all living organisms including human and their consumption through diet fulfill the requirements of body¹.

Tribals and rural people know and also used number of wild edibles plant. If we used these plant are in daily diet may help to decrease the disorders caused by nutritional deficiencies. Deficiency of vitamins still occur in developed countries, it is due to poor nutritional diet in developing and less developed countries. Some of the deficiencies are induced by diseases or drugs². To maintain health, vitamins are supplied by beans and fruits in various forms. Vegetables also supply various types of vitamins together and are consider as an excellent natural food. This study was undertaken to estimate vitamins from *M. quadrifolia* Linn.

M. quadrifolia Linn was collected from Melghat region during 2008-09. Particularly plant material collected from chikhaldara in Amravati district, where the temperature noted 25 °C at height 822 feet. After the complete identification, description and noting of significance of each plant was taken for investigation. Fresh as well as shade dried plant material was used for estimation of vitamins by using spectrophotometer and fluorometer³.

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Moisture contents: The moisture content is the amount of water present in plant material. The moisture percentage in material was determined by simple method. 10 g of material was shade dried and weighed after drying. The moisture percentage is found to be 81.8 %.

The values of vitamins obtained were converted into per 100 g fresh weighed sample. A daily requirements of thiamine⁴ in infants 0.5 mg, in children 0.7-1.2 mg in adult male and female 1.0-1.1 mg.

Thiamine was noted in fresh plant material was 394 mg/100 g and in dry plant material was 185 mg/100 g fresh plant material contain more thiamine than the dry plant material. The daily requirement of riboflavin is 1.6 mg for the adult male and 1.2 mg for the female⁵. Riboflavin was found in fresh plant material, 2.5 mg/100 g and 0.05 mg/100 g and in dry plant material was found to be 0.75 mg/100 g and 0.375 mg/100 g.

The recommended dietary allowance of ascorbic acid is 90.0 mg/day. Vitamin C was noted in fresh plant material was found to be 240 mg/100 g and in dry plant material was noted in 2290 mg/100 g.

Marsilea quadrifolia Linn. contain highest amount of vitamin C than the other vitamins. Vitamin C is maintaining collagen, protein necessary for the formation of connective tissue in skin, ligaments and bones. It protects the thiamine, riboflavin from oxidation⁴. Thus, *M. quadrifolia* Linn is very useful from nutrition point of views.

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