

# Effect of Mahua Extract on Common Cold

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**Abstract:** Mahua (*Madhuca longifolia*) is a tropical tree, belongs to family sapotaceae. It is mainly cultivated in tribal areas for its edible flowers and oilseeds. It is traditionally help to cure several diseases like diarrhoea, headache, eye and skin diseases. Madhuca longifolia possesses antidiabetic, antiulcer, antioxidant, antifertility, antibacterial, antifungal, antiviral, antihelmenthic, analgesic, anticancer, hepatoprotective properties. Common cold is mainly caused by Human rhinoviruses (HRV) and it leads to acute respiratory tract infection both in adults and children. Among all the serotype of rhino virus, RVC is predominantly cause common cold. Mahua is a good source of wide range of phenolic compounds. By analysing and knowing the working mechanism of those phenolic compounds we can treat common cold which is caused by rhinovirus. The capsid protein may be inactivated by the phytochemicals that are present in mahua plant. The qualitative test of the phytochemicals is necessary by which it will be confirmed whether the particular phytochemical is present or not. After that the phytochemicals are isolated from the extract. Then the quantitative analysis of those phytochemicals are done. Then various experiments are carried out to know whether the isolated compounds are able to inhibit the virus or not.

**Keywords:** *Madhuca indica*, Rhinovirus, Antiviral activity, Antioxidant activity

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## Introduction

India is rich in various medicinal and aromatic plant species which are mainly used in ancient time. Approximately 65% of the world's total population use the medicinal plant for treatment of various diseases as said by WHO (2003). Broad range of diversified plants mainly used for various purposes like flowering, fruiting, decoration and medicinal use etc are given by nature to us. India posses wide diversity of such plants, which are used traditionally and have potential of being commercialized such as mahua, rhododendron, kachnar, moringa, gulmohar, palash, etc. *Mahua* is one of those plants which is occupying key space in ethnic and economical life of tribal people. In India, Mahua plant commonly found in the region Chhattisgarh, Madhya Pradesh, Odisha,

West Bengal and Maharashtra. Mahua is resistant to frost and predominantly found in tropical and subtropical forests. 2–46°C temperature, 550-1500 mm mean annual rainfall, 40-90% mean annual humidity require for the proper growth of the plant. The height of the plant is approximately 20 meters. As it is a tropical tree, it is evergreen or semi evergreen in nature. Flowers are small in size and good in smell. It also possesses many nutraceutical properties. For tribal people this plant is a boon because it provides them food, fodder and fuel. Flowers are highly nutritive and rich in carbohydrates, proteins, vitamins, minerals etc. Many fermented and non fermented food products are made from this.

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