

1. question folium  
should be washed  
thoroughly with



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1. Question or problem to be addressed The aim of this research proposal is to perform phytochemical screening of a new variety of *Syzygium cumini*. *Syzygium caryophylli* folium (family- Myrtaceae) is an evergreen tropical tree and native to the Indian Subcontinent and was reported from Chandrapur district of Vidarbha region, Maharashtra.

The main objective is to determine phytochemicals present in *S. caryophylli* folium leaves through ethanol extract along with biological activity against gram positive and gram negative microorganisms. 2. Background to the problem Medicinal plants are used for healing and curing of human diseases due to presence of phytochemical constituents. Phytochemicals are of two categories; primary and secondary constituents. Primary constituents include chlorophyll, proteins sugar and amino acids while secondary constituents contain terpenoids and alkaloids phenolic compounds. Terpenoids exhibit various pharmacological activities such as anti-malarial, anti-fungal, anti-inflammatory activities etc.

Alkaloids are used as anaesthetic agents. Phenolic compounds possess biological properties such as anti-ageing, anti-carcinogen, anti-inflammation, cardiovascular protection and improvement (Han et al., 2007).

Plant products have been a part of phytomedicines since time immemorial. These can be derived from any part of the plant like barks, stems, leaves, roots, seeds, etc (Cragg and David, 2001), i. e., any part of the plant may contain active compounds which occur naturally.

The plants belonging to the family Myrtaceae are used as anti-inflammatory, antinociceptive, antimicrobial, antioxidant agents. This species are also used

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as folk medicines to treat several diseases, especially gastrointestinal disorders, haemorrhagic and infectious diseases. Due to this fact, preliminary phytochemical screening of plants is in need to discover and develop novel therapeutic drugs with improved efficacy. Numerous research groups have also reported such studies throughout the world. Correlation between the phytoconstituents and the bioactivity of plant is desirable to know for the synthesis of compounds with specific activities to treat various health ailments and chronic diseases. 3. Experiment to address the problem The fresh leaves of the plant *Syzygium caryophylli* folium should be washed thoroughly with water, shade dried for about 10 days.

The dried plant sample then should be homogenized into fine powder and stored in air sealed containers at room temperature before extraction. The components of finely powdered plant material are to be extracted using Soxhlet apparatus using organic solvent ethanol. The extract then is concentrated and stored in air tight glass container for further use.

The aqueous extract of leaves sample is analysed for the presence of the phytochemical constituents present in the plant. Alkaloid: The ethanolic extract is to be evaporated to dryness in boiling water bath. Then about 0.2 grams of residue is dissolved in 2% H<sub>2</sub>SO<sub>4</sub> and filtered. A few drops of Dragondroff's reagent is added. Orange-red precipitates indicates the presence of alkaloids.