

**UGC Minor Research Project**

**Summary of the Project**

**Entitled**

**“Bioprospecting of lesser known plants for metabolites in Narnala  
Sanctuary of Akola district (M.S).”**

**For the year 2008 -10**

**Sanction Letter No. F.47-352/07 (WRO) Dated -12 March-2008**

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**Name of Principal Investigator**

**Dr. S.N. PATOLE**

**Shri Shivaji Arts, Commerce and Science College, Akot.**

## SUMMARY OF THE PROJECT

Preliminary quantitative phytochemical screening was carried out during the study period, 2008-2010. Crude plant extract was prepared by Soxhlet extraction method. Different tests were performed to detect the secondary metabolites. These qualitative screenings were performed initially with different chemical reagents to detect the phytochemical constituents present in methanol and aqueous extracts. Preliminary phytochemical screening showed the presence of various secondary metabolites such as proteins, carbohydrates, glycosides, steroids, flavonoids, terpenoids, phenols, tannins, saponins, alkaloids etc. The phytochemical characteristics of 25 medicinal plants were tested. The results revealed the presence of medically active compound in these plants. It was observed that proteins, carbohydrates, phenols, tannins, flavonoids and saponins were present in all the plants. Glycosides were absent from the leaves of *Tinospora cordifolia* and *Argemone mexicana*. Steroids were absent in the leaves of *Argemone Mexicana*, *Boswellia serrata* *Xanthium strumarium* terpenoids were absent in the leaves of *Ipomoea aquatic*, *Ricinus communis*. Alkaloids were absent in the leaves of *Ricinus communis*, *Tinospora cordifolia*. *Tribulus terrestris*, *Terminalia bellerica*, *Terminalia arjuna*, *Miliusa tomentosa*, *Boswellia serrata*,

*Diplocyclos palmatus, Morinda tomentosa, Costus speciosus, Aegle mormelos and Tephrosia purpurea.*

In order to promote the herbal drugs there is an urgent need to evaluate the therapeutic potential of the drugs as per WHO guidelines. About 30% of the worldwide sales of drugs is based on Natural products. Traditional indigenous medicine is limited to small tribal and geographical areas called "Little traditions" are an excellent repository of knowledge about medicinal properties of botanical sources. The bioactive extract should be standardized on the basis of phytochemical compounds. Phytochemical screening of medicinal plants is very important identifying sources of therapeutically and industrially important compounds. It is imperative to initiate urgent steps for screening of plant for secondary metabolites. The present study attempt to assess the status of phytochemical properties in leaves of medicinal plants to improve the health status of people and also to use in pharmaceutical and nutraceutical products of commercial importance.