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DEPARTMENT OF BIOTECHNOLOGY

A Project Report On

**“POMOLOGY AND MOLECULAR DIVERSITY
STUDY OF POMEGRANATE IN BAGALKOT
DISTRICT”**

GUIDE

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ABSTRACT

Pomegranate is one of the oldest edible fruits. This has been used to treat Acidosis, Microbial infections, Diarrhoea, Helminthiasis, Haemorrhage and Respiratory pathologies. This species is having the antiviral activity and also it is used as anticancer agent. There has been an increase in determining antioxidant properties of red fruit(Pomegranate), due to their rich dietary sources of antioxidants and phenolics.

This study was carried out to determine genetic relationships among Pomegranate cultivars of Bagalkot district from various taluka's of Bagalkot district namely, Bagalkot, Mudhol, Jamakhandi, Bilagi & Badami. by using randomly amplified polymorphic DNA (RAPD) technology. And pomology involves study of Fruit weight, Fruit size, Aril number, Skin thickness, Skin color, Flavor, pH. And molecular diversity study involves RAPD analysis ,quantification and amplification using random primers. In one primer diversity has been found. The distinguishing characteristics of Pomegranate were studied to identify the species from bands for research works. The RAPD band pattern will lead to the direct comparison and identification of different genetic materials of Pomegranate of local cultivars of Bagalkot district and creating database which includes the pomological and molecular diversity study.