
Project work on
**"A STUDY OF ANTIOXIDANT AND ANTIMICROBIAL PROPERTIES
OF NELUMBO NUCIFERA RHIZOME/FLOWER ON HARMFUL
BACTERIA AND BENEFICIAL GUT FLORA"**

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ABSTRACT

Nelumbo nucifera (Lotus) is an aquatic plant belonging to the family Nymphaeaceae. The roots, rhizome, seeds which are edible have been reported to have various nutritional and medicinal properties. In our study, antimicrobial activity of *Nelumbo nucifera* has been investigated using agar diffusion susceptibility test. The action of lotus petal and stamen powders on harmful bacterial species namely *Bacillus subtilis*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Salmonella typhi* and *Klebsiella pneumonia* and beneficial gut flora including *Lactobacillus acidophilus* and fungal species namely *Aspergillus niger* and *Penicillium notatum* was studied. And it was inferred that lotus had effects on these beneficial gut flora; while growth enhancement was observed in two other fungal species *Trichoderma harzianum* and *Ceratocystis paradoxa*. Lotus extracts were also tested for phenolic and flavanoid compounds which are excellent anti-oxidants.