

**Department of Microbiology**  
**Project Under Star College Scheme**  
**Use of Compost Tea as a Biofertilizer**  
**2013-14**

**During the session 2013-14 a project under Star College Scheme on “Use of Compost Tea as a Biofertilizer” was undertaken with the help of students of B.Sc II Microbiology students namely Miss.Durga Dhadod and Miss Priyanka Bhoyar along with Teachers namely Mrs.S.S.Khandare Co-ordinator of the project, Ms.Harshada S.Kitey and Shri G.N.Wagh,Head ,Dept.of Microbiology.**

Plant growth promoting Rhizobacteria were isolated from Liquid Biofertilizer Compost tea. The isolated bacteria were screened for their plant growth promoting activities by assaying the following attributes:

- Production of Ammonia
- Seed Germination test
- Production of IAA
- Antifungal activity
- Application of compost tea in the form of foliar spray to ornamental plants such as X'mas tree and Musanda plant.

In the seed germination test increased root and shoot length was observed as compared to the control plates where seeds were treated with sterilized medium only. In ammonia production test, PGPR shows maximum amount of ammonia production. Indole acetic acid production was also observed by PGPR which has been detected by chromatography.

The PGPR from Compost tea also shows antifungal activity. This antifungal activity was positive for *Penicillium* sp., *Drechslera* sp. Whereas *Rhizopus* was found to be resistant.

The Compost tea was applied to X'mas tree and Musanda tree in the form of foliar spray. In the X'mas tree good vegetative growth has been observed as compared to control whereas in Musanda Tree good vegetative growth with profuse flowering has been observed, as compared to control.