

World Congress on **APPLIED MICROBIOLOGY**
&
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***Talaromyces pinophilus* a pioneering fungi strain as Phyto Intensification**

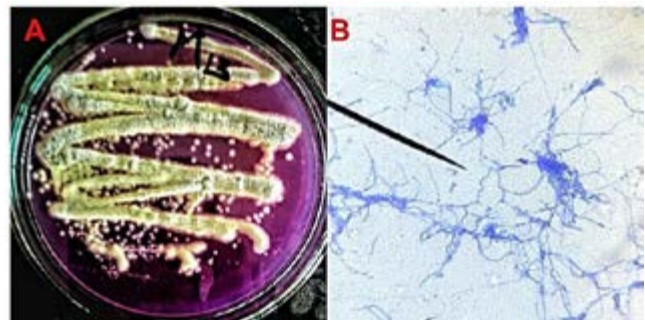
DhavalKumar Patel¹, Shreya Patel², Sony Tekwani², DK Acharya¹, Dweipayan Goswami², Sudeshna Menon² and Sebastian Vadakan²

¹Parul University, India

²St. Xavier's College, India

Talaromyces pinophilus (MG011365) fungi belongs to family *Trichocomaceae*. The aim of current research was to explore different fungi as Plant Growth Promoting Fungi (PGPF). The study involves the isolation of different fungi from the rhizosphere of various agriculture farms. After isolation of *T. pinophilus* its' ability to produce phytohormone was carried out (Indole Acetic Acid, IAA). IAA estimation was carried out using Salkowski reagent. *T. pinophilus* was allowed to grow in cultivation media (Potato Dextrose Broth, PDB) in which one was supplemented with tryptophan (TRP) and one without TRP (TRP a precursor for IAA production). Phosphate solubilization was carried out by growing *T. pinophilus* in pikovskaya's media and latter estimated using stannous chloride method, showing decent solubilization of phosphate. Further enzyme assay for cellulase and chitinase were carried out. For cellulase enzyme production 1% carboxymethylcellulose (CMC) and

for chitin enzyme production 1% colloidal chitin was used along with 1X MM9 agar media. Statistical analysis was carried out with *Trichoderma longibrachiatum* (MG011366) which is one of the most explored PGPF strain. *Talaromyces pinophilus* showed predominant effect as compared to *Trichoderma longibrachiatum*.



Biography

Dhaval Patel has his expertise in plant fungi interaction in improving the health of agricultural soil. He deals with the biocontrol and phyto-enhancer activities of fungi and also has expertise in studies relating to phytohormones production, phosphate solubilization, ammonia production, siderophore formation, and also deals with cellulase and chitinase enzyme for biocontrol activity.

dhaval8294patel@gmail.com

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