

## Isolation and Identification of Phosphorus Solubilizing Fungi in Forest Soils around Koh-Sepid Lar Using ITS-PCR Method

G. Saadaat Zorieyeh<sup>1</sup>, E. Adhami<sup>1\*</sup>, R. Naghiha<sup>2</sup>, H. R. Owliaie<sup>1</sup> and R. Mostowfizadeh-Ghahamfarsa<sup>3</sup>

(Received: Feb. 9-2015; Accepted : June 27-2015)

### Abstract

The present study was conducted to isolate and identify phosphorus solubilizing fungi and to evaluate their ability through a qualitative and quantitative experiment. An experiment was carried out with 5 soil samples of Koh- Sepid Lar, Kohgyloyeh and Boyer Ahmad province. The ability of isolates was studied in solid and liquid cultures. Quantitative experiment consisted of blank, four fungi isolates and *Aspergillus niger*, with 3 replications. Two fungi that showed the highest potential in P solubilization were used for identification by ITS- PCR methods. Four of the fungi produced very clear zone on the Pikovskaya culture. The order of soluble P content in the liquid culture was: blank < fungi 4 < fungi 3 < fungi 2 < *Aspergillus niger* < fungi 1. Two high potential isolates, 1 and 2, were *Cladosporium cladosporioides* and *Eupenicillium rubidurum*, respectively. This is the first report about the potential of these fungi to solubilize P.

**Keywords:** Isolation, Phosphorus solubilizing Fungi, PVK, Liquid culture.

---

1. Dept. of Soil Sci., College of Agric., Yasouj Univ., Yasouj, Iran.  
2. Dept. of Animal Sci., College of Agric., Yasouj Univ., Yasouj, Iran.  
3. Dept. Plant Protection, College of Agric., Shiraz Univ., Shiraz, Iran.  
\*: Corresponding Author, Email: eadhami @gmail.com