

# Exploration Of Pectin – Utilizing Yeast From Soil Of Fruits Orchard

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## ABSTRACT

There is a high demand on pectin-utilizing yeasts for industrial, agricultural and environmental purposes, further, exploration of yeast from various sources are important to enrich yeast culture collections. Nine yeast strains were isolated from various soil sources sampled based on biological sampling in Bogor and Central Java. Enriched media containing pectin as carbon sources was employed for isolation of the yeast. The isolated yeast were identified according to the methods described in monographs by Kreger – Van Rij (1984), Barnett et.al (2000), Guilliermond and Tanner (2006) . The strain isolated were taxonomically separated into 3 groups. Group I contains 3 strains, and this group are closely related to *Candida tropicalis*. Group II contains 4 strains, and this group are include in this genus *Rhodotorula*. Group III contain 2 strains, and this group are closely related to *Williopsis saturnus*, which is a synonym of *Hansenula saturnus*. Pectinolytic enzymes (Polygalacturonase) were produced by all of tested strains. Polygalacturonase production of 1.7 U.ml<sup>-1</sup> (strain no. 111, group I), 1.7 U.ml<sup>-1</sup> (strains no. 123, group II), 1.0 U.ml<sup>-1</sup> (strain no. 211, group III), respectively.