Abstract

This study was aimed to assess the ability of soil molds isolates from Wonorejo Surabaya to produce cellulase and xylanase and also the activity. Thirty-seven (37) mold isolates obtained from culture collection of Laboratory Microbiology and Biotechnology Department of Biology ITS. The medium used is Cellulose Congo Red Agar (CCRA) for the exploration of cellulase and wheat bran solid media for xylanase. Based in the result, five isolates of the molds based on the ratio of clear zone and the activity of cellulase are Penicillium sp.1 at 1.86 cm: 12.58 IU / ml, Penicillium sp.2 at 1.67 cm: 16.47 IU / ml, Penicillium sp.3 at 1.82 cm: 17.66 IU / ml, Aspergillus niger at 1.78 cm: 2.361 IU / ml and 1.48 cm for Paecylomyces sp.1: 7.5 IU / ml. While the big five isolates of the fungus based on the ratio of clear zone and xylanase activity are Trichoderma sp.1 at 2.28 cm: 6.98 IU / ml, Penicillium sp.3 at 1.47 cm: 8.98 IU / ml, Verticillium at 1.33 cm: 4.99 IU / ml, Penicillium sp.2 at 1.19 cm: 4.67 IU / ml, Aspergillus niger at 1.18 cm: 6.88 IU / ml, and Trichoderma sp.2 at 1.18 cm: 5.42 IU / ml.

Key words: enzyme activities, cellulase, xylanase, clear zone, soil mold Wonorejo Surabaya