Abstract

The ability of Trichoderma spp. in producing chitinase, β-1,3 glucanase, and cutinase, and it's in vitro growth capacity and on the flowers and cocoa pod. Muhammad Junaid, Ade Rosmana and Firman.

The aim of the research was to know the activity of Trichoderma spp. enzyme, and it's growth capacity on the surface of flowers and cocoa pod. The enzyme of Trichoderma spp. was isolated from bean and cocoa leaf taken from the regencies of Bone (BN), Palopo (PP), Soppeng (SP), dan Bulukumba (BK). The enzyme was incubated in liquid medium then measured the colors absorbance at the UV/VIS spectrophotometer test. This research was carried out to test activity of chitinase, β-1,3 glucanase activity was determined used colloidal chitin (Sigma) as substrate and standardized by N-asetilglucosamin (sigma). β-1,3 glucanase activity was determined used by laminarin (Sigma) as substrate and standardized by glucose. The chutinase activity was determined used by *p*-nitrophenil butirate (Sigma) as substrate and standardized by *p*-nitropehil meanwhile the growth capacity was tested by spraying the spores on the flowers and pods for three days then were reinoculated on the growth medium of PDA. The results showed that Trichoderma spores from isolated Palopo 2 (PP2) has produced the highest chitinase and β-1,3 glucanase activities, while spores isolated from Palopo 1 (PP1) has produced the highest cutinase activity. The highest spores' growth capacity on the flowers was obtained by isolate taken from Bone 1 (BN1).