

## ABSTRACT

Chili farming faces several constraints, one of which is the pathogenic fungus *Colletotrichum capsici*. To overcome it can be used indigenous endophytic fungus and liquid smoke wood Ulin (*Eusideroxylon zwageri* Teijsm. & Binn.) which has the potential as antimicrobial can be used. This research aimed to quantify and measure the effectiveness of an antimicrobial liquid smoke, endophytic filtrate, and the combination to suppress *C. capsici* growth. Subsequently, the research was conducted to apply the liquid smoke, endophytic fungi, and the two combinations of treatments on the growth of *C. capsici*. Thus, the results of this research showed that liquid smoke with a concentration of 0.085-1.75% can inhibit 3.56-62.17% in range. Meanwhile, the endophytic fungi filtrate, of 2% concentration can inhibit 91.69% *C. capsici*. Two of the combination liquid smoke in a concentration of 0.68%, 1.36% and the endophytic fungi filtrate in 2% have a demonstrated to inhibit the growth of *C. capsici* with the highest inhibition into 88.08%. Based on the analysis results, liquid smoke, endophytic fungi filtrate, and a combination of both showed significantly different inhibitory effects between treatments. This indicates that all those three treatments have antimicrobial potential.