ABSTRACT

Research on giving extracts of babadotan leaves, tembelekan and alang-alang against anthracnose on chili peppers. This study aims to determine the fungicidal activity of extracts of babadotan leaves, tembelekan and alang-alang on the growth and development of anthracnose disease on chili peppers. This method includes extracting babadotan leaves, tembelekan and alang-alang, making Potato Dextrose Agar (PDA) media, culturing *Colletotrichum capsici* fungal isolates and *in vitro* and *in vivo* testing. The research was carried out in a laboratory with three types of treatments arranged in a completely randomized design (CRD). *In vitro* testing showed that extracts of babadotan leaves, tembelekan and alang-alang were able to inhibit the growth of *Colletotrichum capsici* colonies ranging from 0.50-1.24 cm, inhibitory power was 80.58-92.15%, spore density $0.16x10^6$-$0.22x10^6$ at 7 days after inoculation and testing. *In vivo* showed that extracts of babadotan leaves, tembelekan and alang-alang were able to reduce disease severity between 12.50-16.00%, disease incidence ranged from 26.00-30.00% and chili fruit weight loss was 28.97-32.92%. Extracts of babadotan leaves, tembelekan and alang-alang have potential as vegetable fungicides in controlling anthracnose in chilies.

Keywords: red chili, anthracnose, *Colletotrichum capsici*, babadotan, tembelekan, alang-alang