

## **Antifungal phytochemical compounds of cynodon dactylon and their effects on *Ganoderma boninense***

### **Abstract**

*Cynodon dactylon* is a type of perennial grass that possesses great medicinal values. It is traditionally used as a rejuvenator, for wound healing and was believed to be able to cure many diseases and infections. Scientifically it has been reported to possess many pharmacological activities including antidiabetic, cardioprotective, antidiarrheal and antibacterial properties. However, the role of *C. dactylon* in combating plant fungal pathogens was scantily reported. In the present study, antifungal activity of *C. dactylon* ethanol Solid Phase Extraction (SPE) extract against *Ganoderma boninense* was investigated. The antifungal activity and Minimum inhibitory concentrations (MICs) were evaluated using agar diffusion bioassay. In this study, elute fraction of *C. dactylon* ethanol SPE extract effectively suppressed the *G. boninense* growth after 14 days of incubation (MIC=20.00 mgmL<sup>-1</sup>). Based on Liquid Chromatography-Mass Spectrometry (LCMS) analysis, some possible antifungal compounds against *G. boninense* were identified as Tokoronin, Ophiopogonin C and Cyclopassiflosides (Saponins), Elemicin (Phenolics), 5-oxo-7-octenoic acid, Stearidonic acid and 17-Hydroxylinolenic acid (Fatty acids), Neocnidilide (carboxylic acid), Gingerglycolipid B and Apiole.