

## ABSTRACT

Methanolic extract obtained from the dried leaves of *Withania Somnifera* was subjected to column chromatography leading to the isolation of two withanolides. Their structures were elucidated using 1D and 2D NMR spectroscopy. The isolated withanolides were determined to be 5 $\alpha$ , 17 $\beta$ -dihydroxy-6 $\alpha$ , 7 $\beta$ -epoxy-1-oxo-witha-2, 24-dienolide (1) and 4, 5, 6, 15-tetrahydroxy-1-oxo-witha-7-enolide (2). The bioassay of the methanolic extracts showed activity against the fungal pathogens, *Fusarium moniliforme*, *Fusarium graminearum*, *Colletotrichum lindemuthianum* and *Pythium* spp. The extract was also active against bacterial pathogens, *Xanthomonas campestris* pv. *phaseoli* and *Pseudomonas syringae* pv. *phaseolicola*. The withanolides did not show any bioactivity indicating that they are either active only synergistically with other compounds within the extracts or there are other active compounds in the extract.

**Key words:** *Withania somnifera*, withanolides, methanolic extract, antifungal, antibacterial.