

The Potensial of Fusarium sp. and Chaetomium sp. as Biological Control Agents of Five Broad-Leaf Weeds

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Abstract	<p>Weeds are a major problem in crop cultivation, either in food crops, horticulture, plantations or forests and cause a decrease in the quality and quantity of production. Weed biocontrol, especially by using plant pathogenic fungi, has received attention but is still lacking in application. The purpose of this study was to determine the potential of Fusarium sp. and Chaetomium sp. as biological control agents against five broad-leaf weeds (<i>Asystasia gangetica</i> L., <i>Ageratum conyzoides</i> L., <i>Synedrella nodiflora</i> (L.) Gaertn., <i>Wedelia trilobata</i> (L.) U.S. Hitchc. and <i>Amaranthus spinosus</i> L.). The variables observed were the incubation period, disease incidence, disease intensity, as well as weed fresh and dry weight. The results of this study showed that the two pathogenic fungi, Fusarium sp. and Chaetomium sp., can cause a more intensive disease in <i>A. conyzoides</i> than <i>A. spinosus</i>. <i>A. gangetica</i>, <i>S. nodiflora</i> and <i>W. trilobata</i>; however, the fungi have not been able to inhibit the growth and kill the weeds. Therefore, improvement need to be done by modifying the media to increase the ability of fungi to control weeds.</p>
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