Application of Biocontrol Product Bio P60 and NASA Liquid Organic Fertilizer on The Development of Fusarium Wilt and Yield of Shallot in Planta

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Abstract	Shallots are indispensable in all aspects of human life, and shallot production is always facing Fusarium wilt disease. Chemical control of the disease has failed, and environmentally friendly control alternatives are needed. One of them is Bio P60 biocontrol product combined with liquid organic fertilizer. Aims of the research was to assess the effectiveness of NASA liquid organic fertilizer and Bio P60 in controlling Fusarium wilt and its impact on shallot growth and yield in planta. This research was conducted in the field using polybag, for five months. Completely randomized block design was used comprising of two components with 16 treatments and 3 replicates. The variables observed were incubation period, disease intensity, AUDPC, plant height, number of leaves, number of tubers, plant wet weight, tuber wet weight, plant dry weight, and tuber dry weight. The results showed that the application of Bio P60 five times was the most excellent treatment in postponing the incubation period by 61.71%, suppressing disease incidence by 66.67%, and reducing AUDPC by 69.84%, increase growth and yield components such as plant height by 30.75%, number of leaves by 40.7%, number of bulbs by 75.6%, bulb fresh weight by 104.53%, blub dry weight by 51.1%, crop fresh weight by 48.24%, and crop dry weight by 49.77% compared to the control. The fertilizer application has no significant effect on all variables.
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