

**ENDOPHYTIC MICROORGANISM OF UNDER WATER STRESSED
JAVA GINSENG (*Talinum paniculatum* Gaertn.) AND ITS EFFECT TO
JAVA GINSENG SEEDLING**

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ABSTRACT

Java ginseng (*Talinum paniculatum* Gaertn) is a medicinal plant with a lot of benefits and it has a great mechanism to survive under water stress. The propagation of java ginseng can be conducted by generative process using the seed of java ginseng. However, the germination process can be inhibited by deterioration of the seed which. Invigoration is one of the solution for this problem. Endophytic microorganisms are nonpathogenic plant associated microbes that live inside the host microenvironment. It influences plant mechanisms to survive under abiotic stress and as plant growth promotion. This research was conducted at Microbiology Laboratory and Production Laboratory, Faculty of Agriculture, Siliwangi University in April – September 2022. This research includes exploration of endophytic bacteria and fungi from 7 samples of under water stressed java ginseng. The selected endophytic bacteria and fungi were used in a germination experiment using Completely Randomized Design with 3 treatments (A=control, B=Endophytic bacteria, C=Endophytic fungi). 42 isolats of endophytic bacteria and 5 isolats of endophytic fungi were isolatd from java ginseng. It has been identified and purified by morphological characteristics. The result of the seedling experiment shows that endophytic microorganisms have no significant effect on presentation of germination, growth speed and simultaneity of sprouted seeds.

Key words: Java ginseng, water stress, endophytic microorganism, germination.