

ABSTRACT

EFFECT OF PROBIOTIC TYPES ON GROWTH AND PRODUCTION OF WATER SPINACH (*Ipomoea reptans* Poir) ON AQUAPONIC CULTIVATION SYSTEM WITH CATFISH (*Clarias gariepinus*)

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Aquaponics is a cultivation system that integrates plant cultivation with fish cultivation so that it can be more efficient in terms of time and place. The increasingly narrow productive land makes the need for efforts to intensify the cultivation process so that productivity remains high without land constraints. This aquaponic cultivation system is a potential solution for fisheries and agriculture by using water that is more efficient. One of the popular aquaponics methods among the community is the cultivation of fish in buckets "Budikdamber" which carries the concept of cultivating fish and plants only in buckets. This Budikdamber study used an experimental method using a Completely Randomized Block Design (RCBD/RAK). This study consisted of four treatments and each treatment was repeated 6 times, namely treatment A as a control, treatment B probiotics EM4, treatment C probiotics Minaraya, and treatment D Raja Lele, respectively probiotics are given in each 80 liter capacity bucket at a dose of 1 ml/L or 70 ml/70 liters. Data analysis used variance and continued with Duncan's multiple distance test at 5% level. The results of this study affect the number of leaves, number of branches, stem diameter and yield weight per aquaponics unit.

Keywords : aquaponics, budikdamber, probiotics, dose.