

## ABSTRACT

Ahmadi, Deni Hidayat. 2014. **Effect of planting media and local micro-organisms concentration giving (MOL) jackfruit banana hump on jatropha seedling (*Jatropha curcas* L.)**. Thesis. Department of Biology, Faculty of science and technology. State Islamic University of Maulana Malik Ibrahim Malang. Supervisor: Ruri Siti Resmisari, M.Si and Andik Wijayanto, M.Si

**keywords:** Planting Media, Local Microorganisms (MOL), Banana Jackfruit, *Jatropha curcas* L.)

*Jatropha* (*Jatropha curcas* Linn.) was one source of vegetable oil which was protective to be used as raw material of biodiesel. Planting Media and fertilizer application quality was an important factor of success of *Jatropha* cultivation. Therefore it was necessary to use an alternative fertilizer of Local Mikro-organisms derived from (MOL) hump banana jackfruit. The purpose of this study was the effect of planting media and local microorganism's concentration giving (MOL) of jackfruit banana hump on *Jatropha* seedling.

The design used in the study was a completely randomized design (RAL) with 2 factors. The first factor was the planting media consisting of 3 levels (sand, sand : soil 1:1, sand : soil 1:3). While the second factor was the concentration giving of MOL of jackfruit banana hump consisting of 5 level (0%, 15%, 20%, 25% and 30%). Data were analyzed using variance analysis (ANAVA) and if there were any influences then followed the test of DMRT 5%.

The result show there was no effect of planting media on *Jatropha* seedling (*Jatropha curcas* L.) and there was concentration effect of MOL of the jackfruit banana hump *Jatropha* seedlings (*Jatropha curcas* L.) on all parameters seedling of the addition of root length, increasing of seedling diameter, the addition of high seedling and the increasing of leaves number. The most significant concentration was a concentration of 25% (M3). There was interaction effect of planting media and concentration of 25% (M3). There was interaction effect of planting media (*Jatropha curcas* L.) on the addition parameters of root length and increasing of the leaves number. But there was no interaction effect of planting media and concentration giving MOL of jackfruit banana hump of *Jatropha* seedlings (*Jatropha curcas* L.) on seedling parameters addition diameter and increasing of high seedling.