

SUMMARY

DINIYA HIMAS A. 12504010111218. Adoption innovation farmers through application of technology “mi-lo” (local microorganisms) in rice cultivation land as agens hayati through pht (management integrated pest) to sustainable agriculture (*case study in Petiyin Tungga village, Dukun, Gresik*). Under the guidance of Reza Safitri,S.Sos.MS.,Ph.D and Ir. Edi Dwi Cahyono,MS.,M,Agr.Sc,Ph.D

A technology that applied in the village of Petiyin in the form of Single biological agens usage with several kinds, among others: . 1) the use of biological agents "Mi-Lo" with PGPR (biofertilizers of bacteria with the content of some microorganisms), 2) the use of biological agents "Mi-Lo" bio insecticide, consists of microorganisms that are pathogenic to arthropods or mammals that act as pests, 3) the use of biological agents "Mi-Lo" bio fungicide. 4) decomposers. the participation of farmers in each agenda of the biological agent technology application in Petiyin Tunggal village, district. Shaman, Kab. Gresik have the expectation that farmers are able to apply these technologies without a help of innovators, farmers are able to make the product of their own biological agents, and independently spreading the product. Because by introducing and implementing technology use of biological agents "Mi-Lo" can contribute significantly to improving the productivity and the formation of a healthy and sustainable agro-ecosystem. Seeing the importance of a technology application of biological agents, the participation of farmers, and study the response of farmers in adopting an innovation.

The Research objectives are: 1) Describes processes of biological agent technology transfer "Mi-Lo" on a group of farmers group "Jetis". 2) describes the responses of farmers against the biological agent technologies "Mi-Lo". 3) Describes the spread of technology products for biological agent "Mi-Lo".

The method of data analysis used was qualitative descriptive methods to describe processes of technology transfer biological agent of “Mi-Lo” in a farmer group of “Jetis”. To describe the responses of farmer against agens hayati technology of “Mi-Lo” and describe the spread of technology products for biological agent "Mi-Lo" in Petiyin Tunggal Village, Dukun, Gresik.

The process of “Mi-Lo” biological agents transfer technology in “Jetis” farmers is through preparation, socialization, training up implementation activities. “Mi-Lo” biological agents transfer technology in “Jetis” farmers group began from the implementation of the program *demfarm*, After the passage of demfarm program and have implemented the technology of biological agents on rice cultivation land belonging to each "Jetis" farmer group, then the farmers involved in program demfarm given more knowledge how to make biological agents with the local microorganisms. When finished studying and knowing the process of making biological agents with the local microorganisms, farmer groups "Jetis" and the other members also thinking about create their own biological agents such as Decomposers, PGPR, Bio-Fungicide, Bio-Insecticide of local microorganisms.

The response of the 20 members of “Jetis” farmers of the "Mi-Lo" biological agent technology is getting a positive response. Told that it was got a positive response

because the "Jetis" farmer group had followed, implementing technology of the biological agents that have been introduced in a *demfarm* program until they continue to apply biocontrol agent for rice cultivation land to produce "Mi-Lo" biological agents with its own trademark. In addition, the introduction of "Mi-Lo" biological agents technology program also brings advantages from the "Jetis" farmer groups. Members of "Jetis" farmers said that the technology of Mi-Lo biological agents has the advantage that can make "Jetis" farmers groups "rying to do farm in a way and safe material, which does not make the cultivation of rice into resistant to pests and diseases.

From 5 stages that have been : awareness, interest, evaluation, trial and adoption. The "Jetis" farmer group can not be said that them were in the stage adoption. Because the "Jetis" farmer group biological agents have not applied the technology that provided by Brawijaya University with the large of scale on their land. From the data of applying the "Mi-Lo" biological agent indicates that a lot of members of farmers still trying on a small scale for a more convincing judgment, before applying for a wider scale land.

The spread of technology products biological agents "Mi-Lo" which has been produced by farmer groups "Jetis" that can be known that the spread of products biological agents by the farmer groups "Jetis" brands are PGPR, red, white, Patas, and Damen its existence and its products which has been produced is still in use and is known in the scope of farmer groups who's produced only.

Suggestions for farmer groups "Jetis" are should be formed the parts of the each duties of farmer groups in spreading products that have been produced. farmer groups "Jetis" spreading information about the advantages in applying biological agents in cultivated land and inform about the presence of biological agents which can be produced by the groups "Jetis" to the local community through word of mouth.

