## *ABSTRACT*

Gigih, Mega. 2011. **Aplikasi Pupuk Hayati Berbahan Baku Mikroba Endofit Yang Berpotensi Dalam Meningkatkan Pertumbuhan Dan Ketahanan Tanaman Kentang Terhadap Serangan Nematoda Sista Kuning (***Globodera rostochiensis***).** Lecturer Counsellor: Dr. Ulfah Utami, M.Si., Counsellor Integrate Sain and Religion: Drh. dr. Bayyinatul Muhtaromah, M.Si.

**Kata kunci :** Manure involve, bacterium of Endofit, Resilience, Growth, Crop Potato, Nematoda *G. Rostochiensis*.

Potato crop ( Solanum Tuberosum) in this time usefulness of its corm more and more needed and have role of necessary for economics of Indonesia. Especial Constraint of potato crop conducting the existence of pest attack, one the overcome difficult and all important pest attacking potato crop is *Globodera rostochiensis*. Many way of have been conducted by however not yet been found [by] the way of effective. Is so that needed new alternative that is exploiting of bacterium of endofit made become manure involve standard materials bacterium of endofit. bacterium Endofit is bacterium which live in crop network, without causing loss to crop of mains. This bacterium can induce crop resilience, improving growth of crop, elaborating cell wall of patogen, and pursue growth of patogen productively compound of antinematisida like enzyme of kitinase and of protease.

This research represent research of eksperimental by using complete random device ( RAL) with single pattern. This research is executed in June up to September 2010, in Microbiological Laboratory of Unversitas Islam Country of Maulana Malik Ibrahim, potato crop planted in countryside house green of Sumber Brantas Kab. Malang-Jawa East. Technique analyse data use Analysis Of Varians and if treatment have an effect on reality hence continued with BNT (Different test of Smallest Reality) with level of signifikan 5%.

Result of from this research is manure involve standard materials of single bacterium of *Ozaenae Klebsiella* can improve potato crop resilience to attack *G. rostochiensis*.