ABSTRACT

Maghfiroh, Umi. 2011. **Viability of Indigenous Bacteria Kenaf (*Hibiscus cannabinus* L.) Soaking Water In a Medium Bekatul and Long Storage Freeze-drying Method**. Skripsi, Department of Biology, Faculty of science and Technology, State Islamic University (UIN) Maulana Malik Ibrahim Malang. Advisor I: Ir. Lilik Harianie, AR, M.P. Advisor II: Ach. Naschihuddin, M. A. Advisor III: Farida Rahayu, S.Si, M.P

Keywords: Viability, bekatul Media, *Indigenous* Bacteria, Freeze-drying.

Indigenous bacteria to help untangle the fibers used in the crop kenaf (retting kenaf). During storage, the indigenous bacteria remain in need of media containing nutrients in order to stay alive. The high nutrient still makes bekatul have the potential to provide nutrients for bacteria in time saved for months or years, and the method of freeze-drying is done because it can store the bacteria in a long time and has the advantages of the viability of the bacteria is still high, although it is stored in a long time. The purpose of this research was to study the viability of bacterial indigenous water submerged during storage in the media bekatul by the method of freeze-drying.

The research methods used are descriptive and experimental methods are implemented in March until November 2011 in Microbiology Laboratory Biology Departement UIN Maulana Malik Ibrahim Malang for media creation and cultivation of the microorganism. For the process of freeze-drying is carried out in the laboratory of the Department Faculty of Nutrition and feed the cattle Ranching University of Brawijaya and Biotechnology Laboratory Department of Biology University of Muhammadiyah Malang.

Bacterial viability after the eighth week of storage media 1 (bekatul coupled with skim) higher 40% when compared with medias 2 (bekatul coupled with the skim and glucose), i.e. 2, media 1 5x109 CFU/ml in 2 media, i.e. 1 5x109 CFU/ml. So that the use of the media 1 better than the media 2.