

Evaluation of products as food in closed bio-ecosystem

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We have been studying life-support in closed bio-ecosystem to provide food and oxygen for the habitation area. A cyanobacteria, *Nostoc* sp. HK-01, has high several environmental tolerance. We have already confirmed that *Nostoc* sp.HK-01 had an ability to grow for over several years on the Martian regolith simulant in a laboratory experiment. *Nostoc* sp HK-01 would have high contribution to control the atmosphere in closed bio-ecosystem. In outer environment, all of materials have to circulate for all of creature living in artificial eco-systems. This material has several functions as the utilization in the agriculture under the closed bio-ecosystem condition. Here, we are proposing using them as a food. We are trying to determine the best conditions and evolution for food using *Nostoc* sp.HK-01 and studying the proposal of utilization of cyanobacteria, *Nostoc* sp HK-01, for the variation of meal under the sever environment.

Keywords: Cyanobacteria, *Nostoc* sp. HK-01, food