

Useful utilization in closed bio-ecosystems of *Nostoc* sp. HK-01 having the tolerance of gamma-ray

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Photosynthetic organisms contribute to the circulation of oxygen or carbon dioxide and utilization of foods as a induced organism in closed bio-ecosystems. A terrestrial cyanobacterium, *Nostoc* sp HK-01, having a high drought tolerance, photosynthetic organism, is one of candidate organisms that can be introduced into the closed environment. It has a possibility that HK-01 has also a high gamma-ray tolerance in according to the results from several reports related to the interaction of drought tolerance and gamma-ray tolerance. Here, we will show the several influences on the growth of HK-01 after the exposure of gamma-ray in the dry colony.

Keywords: closed bio-system, cyanobacteria, gamma-ray tolerance, *Nostoc* sp. HK-01, photosynthetic organism