

IAF SPACE EXPLORATION SYMPOSIUM (A3)
Interactive Presentations - IAF SPACE EXPLORATION SYMPOSIUM (IPB)

Author: Mr. Yoshiaki Kurihara
Malaysia, akademisch_freiheit2001@outlook.com

Mr. Taichi Yamazaki
ASTRAX, Inc., Japan, taichi.yamazaki@astrax.space

INSIDE&VERTICAL FARMING ON MARS

Abstract

Farming is a fundamental way for all living things not to die and even live longer since birth of human race. Farming is an essential industry that we all must maintain regardless of place, location and geographical point, in nutshell, it should be universally applicable. Moon isn't also an exception so that we should take into consideration of farming there. Needless to say, Mars is filled with CO₂ in the atmosphere, under the condition we cannot farm directly on the soil. In order to remove the difficulty, we need a big dome to cultivate small sized crops, vegetables, fruits. Under current technology, we cannot farm all types of agricultural products in the huge sized house hence it's necessary to choose seeds that can grow up stably and consequently we can cook safely in the dome for settlement. To realize this project, oxygen generator we bring from Earth needs to be attached inside of the farming house so that plants can inhale fresh air to energize. To conclude my basic plan, inside farming in a room is an inevitable method that we human race and other mammals can eat foodstake enough nutrients from them without deep dependence of goods carried from Earth by transportation. As mentioned repeatedly, inside farming is an effective process to supply us with foods on Mars.