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THE QUEST FOR LEVANT MEAL ITEMS AS OPTIONS FOR POTENTIAL LONG-TERM MEALS FOR LUNAR MISSIONS

Abstract

Sending human explorers two hundred and fifty thousand miles to the moon means that astronauts' food might be taken with them from the earth for short-term space manned missions. For long-term space lunar missions, which is the currently planned destination, they can not depend on earth resources and that means they may grow their own food on the surface of the moon to find any other food alternatives for their survival. Astronauts will have to find proper meal planning that covers their needs from essential protein, carbohydrate, fat, minerals, and vitamins to be nutritional and delectable meals for the crews. The majority of meal planning is done over short periods of time since not all dishes can be served at the surface of the moon. Therefore, the review will be done on the following: an optimal Levant seven days diet meal plan for future moon missions, including nutritional balance and highly accepted and researched Levant food alternatives. The diet plan not only satisfies the criteria for a balanced diet for crews but significantly surpasses the recommended amounts for the majority of nutrients. Cereal, legumes, meat, fowl, fruit, and vegetables represent the majority of Levant's daily fresh food consumption, a new type of dishes containing both common ingredients that were cultivated in lunar greenhouses, we recommended the dish is the Mujadara dish, which is a Levant dish that combines grains and legumes, may cover the human body's needs of carbohydrates, proteins, and other ingredients it may become an integrated dish to support nutritional status of astronauts, other dishes ingredients could be served to be suitable for growing in greenhouses which could be appropriate to support the nutritional health of astronauts. The focus of this work has been on growing nutritious agricultural food products that could be alternatives for feeding astronauts in long-term missions.

This research work represents the ongoing activities towards the establishment of the Jordanian Association for Space Science and Technology Applications (JASSTA)