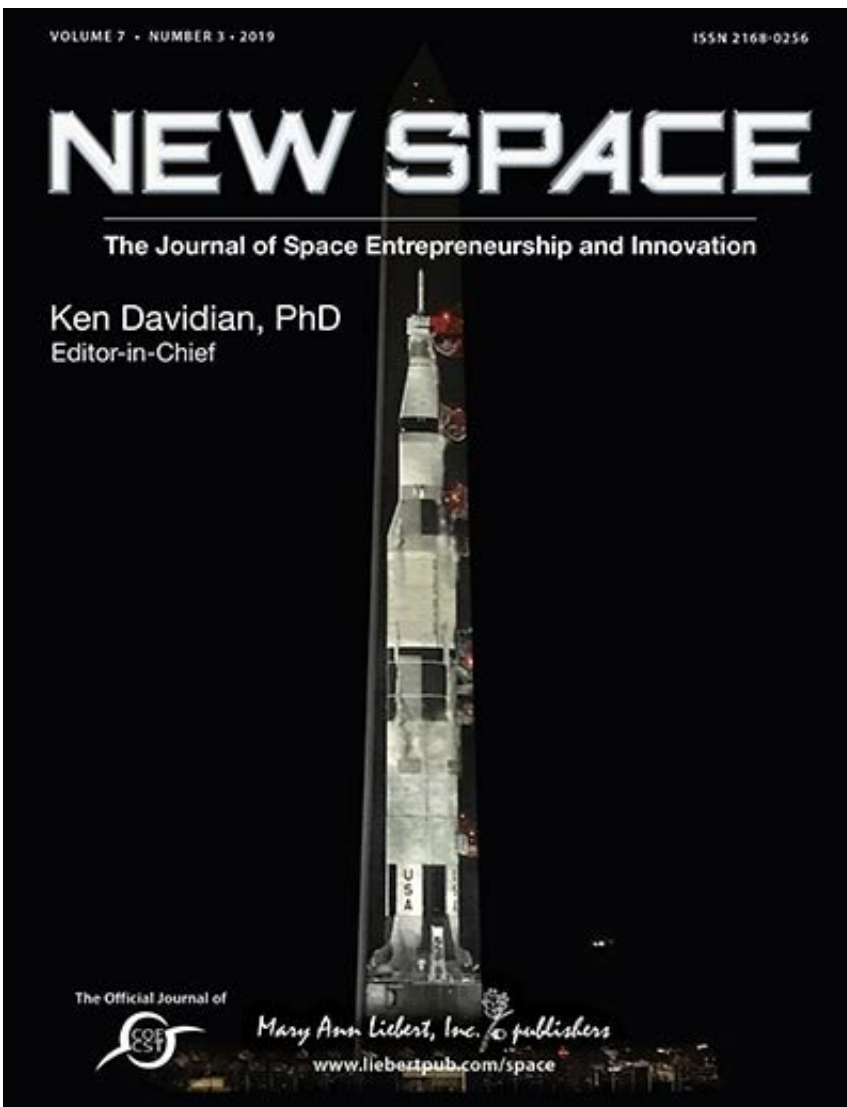


Could we feed one million people living on Mars?

September 24 2019



Credit: Mary Ann Liebert, Inc., publishers

A provocative new study looks at the resource utilization and technological strategies that would be needed to make a Mars population of one million people food self-sufficient. A detailed model of population growth, caloric needs, land use, and potential food sources showed that food self-sufficiency could be achieved within 100 years. The study is published in *New Space: The Journal of Space Entrepreneurship and Innovation*.

In the article entitled "Feeding One Million People on Mars," coauthors Kevin Cannon and Daniel Britt, University of Central Florida, Orlando, evaluated different food sources and quantitatively modeled the shifting balance between food supplied provided from Earth and that produced locally on Mars over time. The model is based on a diet composed of plants, insects, and cellular agriculture, which can produce "clean" meat and fish, algae, chicken-less eggs and cow-less milk. The study takes into account the energy, water, and other systems needed for food production. The researchers discuss the implications of their findings and present recommendations for future research.

"To meet the human right of survival, some minimum daily requirement for calories and nutrition will be a necessary activity for settlement on any moon or planet. Anything above these minimum requirements, however, could be a [commercial activity](#)," says Editor-in-Chief of New Space Ken Davidian, who has worked in the commercial [space](#) transportation industry for over 30 years. "It's not hard to imagine that coffee, or extra fruit, or any [food](#) item that exceeds the minimum requirements, would be a fungible item, if customers want to indulge themselves."

More information: Kevin M. Cannon et al, Feeding One Million People on Mars, *New Space* (2019). [DOI: 10.1089/space.2019.0018](https://doi.org/10.1089/space.2019.0018)

Provided by Mary Ann Liebert, Inc

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