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# NASA TECH BRIEF



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## Food Products for Space Applications

In the exploration of space, nutritional problems take on an importance quite unrelated to those encountered on earth. The environment, which is essentially a complete vacuum plus being almost entirely free of gravitational forces, denies the use of many conventional terrestrial foodstuffs and imposes unusual practices upon an astronaut attempting to use specialty foods. As an example, dry cereal cannot be poured from a container into a bowl since there is no gravitational force to cause it to pour nor to remain in the bowl, for that matter.

With these considerations in mind, a family of specially-prepared foodstuffs has been "designed" to supply the astronaut with a diet containing his basic nutritional requirements in a form that is useful in his environment. In addition, several edible coatings have been developed to preserve certain foods and to give "loose" foods form and firmness. These coatings aid in packaging by excluding air and also give the food "slip" for easy removal from the package in a weightless situation.

Items "designed" in this manner are cubes of cheese cake, custard, sugar cookie, plus bars of a mixture of

peach and cottage cheese. Also prepared for space use, but in dry comminuted form, are corn chowder, pea soup, cream of tomato soup, and whole milk.

### Notes:

1. Persons or organizations faced with long-term food storage and/or packaging problems should find these processes useful.
2. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer  
Manned Spacecraft Center  
Houston, Texas 77058  
Reference: B68-10324

### Patent status:

No patent action is contemplated by NASA.

Source: Patricia S. Cope and Robert W. Larson  
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