

## space, food in

## spaghetti

food with sauce, ready to be heated and consumed whole: Sichuanese *kung pao* chicken, shredded pork with garlic, and the celebratory dish Eight Treasure Rice have all been made available for Chinese astronauts. When the first Malaysians orbit the earth they will be able to dine on coconut rice, fried noodles, *roti canai*, shrimp curry, and *teh tarik* (pulled tea).

Familiar foods and the ability to use mealtimes as a social event can increase morale and reduce the stress of prolonged space missions. However, despite the development of familiar and temptingly strong-flavoured dishes, and the provision of nutritionally correct quantities of food, most astronauts under-eat whilst travelling in space, and many meal packages return to earth uneaten. This may be in part due to the changes in the body affecting the sense of taste and smell, making food that seemed good on earth less appealing in space. But it could simply be that, despite the glamorous image of Tang and re-hydrated ice cream, most food for space travellers is, in the end, pretty unappetizing. JEL

Returning to Eliza Acton and unsure in this matter, the word spaghetti in the dictionary for the first time has been dated by Pioretti. The term was not in Italian until 1846. Domestic dictionary equated spaghetti with pasta. This explains that this term persisted, reflecting the influence of manufacturers, a part of S. Italy. Anyway, for recent names of the Italian are now known recent birth. It is spaghetti and the simplest combination. However, claim to record tomato is France *moderno* of 1790 (and see Willan, 1800 so long afterwards).

is the viscous Indonesian **KECAP** made from black soya beans. In Japan the standard kind is the light one favoured in the Osaka region, amber in colour and saltier than the dark types.

Tamari is a soy sauce made without any wheat, from whole or defatted soya beans only, and is darker in colour than the standard kind.

Something very much like soy sauce, which apparently originated in much the same way from ancient Middle Eastern fish sauces, was made in the Arab world during the Middle Ages under the name *murri*. It was not made from beans but from mouldy barley, sometimes extended with wheat flour or bread; see **BARLFY**.

**space, food in** Space travel has a severe impact on the human body: astronauts suffer from decreases in bone, red blood cell, and lean body mass; weight loss, shifts of fluid towards the head; a propensity to develop renal stones; and increased cataract and cancer risk due to radiation exposure. This means that good nutrition is essential to ensure both peak performance by astronauts whilst in space, as well as their health when back on earth. Developing appetizing meals for astronauts to eat, therefore, is an important focus for nutritionists. As space programmes attempt to extend their reach, the role of food in enabling missions to survive and thrive for longer durations becomes an even greater priority. It is therefore all the more surprising that the image of the food eaten during space travel is of bland pastes and powders, taken directly from tubes or sachets, and concocted with little thought for the unfortunate consumer. In fact, since German Titov became the first man to eat in space in 1961, developing the meals to be eaten during each trip has been an important and detailed part of the pre-flight planning, and there are as many types of canned and thermostabilized space food as there are countries with a space programme.

American cosmonauts eat branded foods like Kellogg's and Quaker breakfast cereals, Kraft puddings, Del Monte canned fruits, and a variety of standard macaroni; tuna; and meat-based dishes spiced up with Tabasco, along with various sweet candy treats. Their Russian counterparts dine on more fish-based items, such as pickled or spiced perch, or borshch, with wild cranberry and buckwheat gruel for breakfast. Duck confit, squid in lobster sauce, toffee rice pudding, and even whole boned sliced quail packed into a tiny tin are available to tempt the palate of those fortunate enough to be part of the French space programme. Reflecting the importance of cutting techniques in Chinese cookery, the Chinese have developed an alimentary membrane which can enclose mouthfuls of

been grown in  
s, the sauce is a  
on. It was  
dynasty (1134–246  
conjunction with  
any of which  
The moulds  
are the principal  
ce, and the  
are similar to  
These  
could  
k on soya beans,  
ive been  
sauce'.  
d paste known as  
into two  
olid **MISO**. In  
ed more than the  
re of equal

(similar in all  
he 17th-century  
the sauce back to  
pular despite its  
labels marked  
antique shops.  
soy after the  
ind.  
r making soy  
f high quality. In  
continues for a  
he changing  
t seasons. There  
nation is carried  
ds, bacteria, and  
dominate in the  
ns change to suit  
is this. Defatted,  
sted, crushed  
The mixture is  
rter culture of  
moulds, and is  
ked with a strong  
with another  
nds of bacteria  
mentation which  
he reactions in  
plex blend of  
he final flavour.  
amino acids,  
tic), alcohols,  
le aromatic  
n, the flavour  
rmentation is  
ered or racked to  
s commonly  
ining organisms  
ere are, however,  
ave been allowed  
ral years.) One  
beans, wheat, and  
oy sauce.  
ch light and dark  
of the dark types