

Astronaut food helps people on Earth



[Access the image](#)

28 September 2016

For hundreds of years people in South America and Africa have harvested a special kind of bacteria called spirulina. It turns carbon dioxide into oxygen, grows very quickly, and perhaps best of all, can be combined with foods to boost their protein levels.

Scientists from ESA's Micro-Ecological Life Support System Alternative team (MELISSA for short) have been finding out all they can about spirulina. It could be the ideal space food, as it can be made into snacks to keep astronauts happy and healthy. ESA astronauts Samantha Cristoforetti and Andreas Mogensen have already eaten spirulina cereal bars in space!

Now this knowledge of spirulina is being used to help people back on Earth. In the Congo is a town called Bikoro. The people there eat a plant called cassava, but unfortunately this does not provide much protein in their diet. Could spirulina help?



[Access the image](#)

A group of scientists from MELISSA certainly think so. They have set up a base in the town and are growing spirulina in large tubs of water. By adding a chemical called potassium bicarbonate into the water, along with a few other easy to find ingredients, spirulina grows very quickly. It can then be turned into a powder and sprinkled onto food made with cassava, adding much-needed protein – and as a bonus, vitamin A and iron!



[Access the image](#)

The MELISSA team are keen to continue their research into spirulina. The next step is to send live spirulina up to the International Space Station and study it in ESA's Columbus laboratory. Nobody yet knows if spirulina will grow well in weightlessness. But if it does, perhaps future astronauts will farm this wonder-food during long voyages far into the Solar System!

Cool fact: Spirulina is also very resistant to radiation that is found in outer space!