

Television broadcasts

ARTE; 3 August 2007; "Algen – Die Alleskönner [Algae – nature's allrounders]"

ARTE – programme information:

Algae are one of the oldest forms of life on earth, yet science is only just beginning to study these plants. So far only 40,000 of the estimated 400,000 species of algae have been discovered, ranging from the single-celled and microscopically small to hundred-meter-long specimens. Algae are found everywhere, in aquariums and on roof tiles, in fresh and salt water, in the desert and in perpetual ice. Researchers suspect that their survival strategies may hold the answer to many of man's problems and want to track down their secrets and properties.

Algae have been used in Brittany for centuries. Back in the reign of Louis XIV an algae industry was already developing along the northern coast of France. Soda from algal ash was used in glass production and the early 19th century saw the start of iodine extraction from algae. Dried algae were used for heating on the small islands off the coast. Algae were, and still are, used as garden fertiliser and in numerous culinary specialities of Breton cuisine. Today the industrial use of algae is centred on alginates which are employed as binders and gelling agents in the cosmetics and food industry.

The poor image commonly held of algae appears to be confirmed by so called killer algae. *Caulerpa racemosa* is a tropical algal species which was brought into the Mediterranean by ships and is seriously threatening the flora and fauna off the coast of eleven countries. Investigations into the substance which makes *Caulerpa racemosa* so successful under water appear to hold promise for cancer research. Algae are the most important basis for continuing life as they are always at the bottom of the food chain. They produce oxygen continuously through photosynthesis. Consequently half of all oxygen molecules are formed by algae. And 40 to 50 percent of the hydrogen on the earth is fixed by algae, so the earth's atmosphere would be inconceivable without them.

In Germany too scientists are investigating the astonishing skills and properties of algae. Superlatives such as "food of the future", "solution to man's energy problems" and "saviour from the oceans" trip lightly off the lips of researchers. Whether on an algae farm on Sylt, at the Ruhr University in Bochum, in the algal cultures collection at Göttingen or at the site of the world's largest biophotoreactor for cultivating the green microalgae *Chlorella* at Klötze in the Altmark region, research and the results of scientific studies really are making algae look like nature's allrounders.



Extract from the programme: Jörg Ullmann, production manager at "Bioprodukte Prof. Steinberg" with an algae jellybaby bear

This (approx 45 min.) television broadcast is available from us as a DVD.