

Blue-Green Algae (Cyanobacteria)

Authors: Wayne W. Carmichael a; Mary Stukenberg a

Affiliation: a Department of Biological Sciences, Wright State University, Dayton, Ohio, U.S.A.

Published in: Encyclopedia of Dietary Supplements

Published on: 15 August 2006

Subjects: Clinical Nutrition; Pharmacology;

Abstract:

In Asia, Africa, and parts of Central/South America, naturally occurring green and blue-green algae have been harvested and consumed for their nutritive properties for centuries. In western cultures, certain blue-green algae (cyanobacteria) have been an accepted source of food for about 30 yrs., in particular *Spirulina (Arthrospira) platensis* and *Spirulina maxima*.

Beginning in the early 1980s, another blue-green species, *Aphanizomenon flos-aquae* (AFA), was adopted for similar uses. Both are rich in proteins, vitamins, essential amino acids, minerals, and essential fatty acids. Consumers of blue-green algae report a wide variety of putative effects such as mental clarity, increased energy, blood and colon cleansing, increased focus, particularly in children with attention deficit disorder, improved digestion, increased eye health, and healthier joints, and tissues. In the past ten years, owing largely to the strong anecdotal consumer testimony about them, studies have been conducted to verify not only their nutritional efficacy but also their potential pharmaceutical benefits as well.