SPIRULINA, CHLORELLA – MOTHER NATURE'S NEAR PERFECT DESIGN

Adapted from an article by Mike Adams, the Health Ranger

Micro-algae like spirulina, chlorella, Klamath algae contain an astounding array of nutritional elements: vitamins, macrominerals, trace minerals, essential fatty acids, protein, nucleic acids (RNA and DNA), chlorophyll, and a vast spectrum of phytochemicals. They are thought to contain every nutrient required by the human body. You could literally live off these micro-algae. You wouldn't need to eat much, either, since they are so nutritionally dense.

The 'micro' part of their name is no joke: these superfoods range in size from 2 to 8 microns, which is about the same size as a human blood cell. They appear green due to their chlorophyll content. Harvesting them requires special centrifuge equipment, which is one reason why individuals don't grow their own micro-algae for consumption. You have to get it from commercial processors who grow these superfoods in vast **water farms** located in regions of the world where the climate permits (the closer to the equator, the better, since there's more sunlight).

If chlorella and spirulina were sold with 'Nutrition Facts' labels, those labels would be impressive indeed: zero refined carbohydrates, high in digestible protein, high in essential fatty acids, no 'bad' fats, high in chlorophyll, and so on. Some of the known properties are listed below. But it's also important to recognize that much of the phytochemical content in these superfoods is simply unknown. Scientists haven't isolated and named all the nutrients. So it doesn't render a complete picture to just list all the vitamins and minerals found in powdered chlorella, for example. The vitamins and minerals that we know of are not the only ones that matter.

In the early 1900s, doctors thought there were only four vitamins needed by the human body. Now we know of over a hundred vitamins, minerals, amino acids, and other substances that are necessary for optimum health. In the years ahead, we'll certainly find even more. And when we do, chances will be that they are already found in micro-algae.

Of the nutritive substances we know about, however, here's what you find in chlorella and spirulina:

- **High-quality complete protein that is more dense and more digestible than any animal-derived protein. (Chlorella is 58% protein.)**
- **All the known B vitamins, including vitamin B which is almost never found in plants.**
- **Vitamin C**

- **Vitamin E**
- **Macrominerals: calcium, magnesium, zinc, potassium and many more**
- **Trace minerals**
- **Omega - fatty acids including GLA**
- **Mucopolysaccharides**
- **Beta-carotene**
- **Nucleic acids (RNA & DNA)**
- **Chlorophyll**

Looking at the nutrients micro-algae provide, a well-informed nutritionist can only stare in awe: these are many of the nutrients needed by every human body, in near-perfect ratios! It's almost as if Mother Nature herself reached down from the heavens and said, "Here's the perfect food for all human beings..." They're that impressive.

Are Chlorella & Spirulina the Answers to Global Malnutrition?

The micro-algae have been a relatively new source of nutrition in the mainstream of industrial civilization during the last thirty years, although they have been used by certain traditional peoples in Latin America, Africa, and elsewhere for millennia. They will become increasingly important throughout the planet if other food supplies dwindle. Already spirulina cultivation projects are underway in various parts of the world, particularly where there is malnutrition.
- Healing With Whole Foods by Paul Pitchford

Spirulina is a potential answer to global malnutrition and food shortages. It can be grown in hot, sunny climates, which is exactly where much of the current malnutrition exists. It reportedly produces twenty times as much protein as soybeans when grown on equal-sized areas. And since soybeans already produce ten times as much protein as cows on a patch of land, it's easy to do the math and conclude that spirulina produces two hundred times as much usable protein as cattle ranching, acre per acre.

That's a profound comparison, especially when considering the continued rise in the global population and vanishing land resources. If we want to feed ourselves and our neighbors in the coming years, spirulina may be one of the most viable ways to do it. Most people in developed countries are also malnourished, although you wouldn't know it from looking solely at the rising rates of obesity. Spirulina and Chlorella can provide the balanced nutrition to help cut food cravings so people can get their diet and their weight back on track.

Xynergy has a range of micro-algaes including spirulina, chlorella, Klamath algae and red marine algae. Well worth considering a part of a weight management programme.