

SPIRULINA FARMING: A SUPERFOOD

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Introduction

Spirulina, multicellular, filamentous cyanobacteria which form tangled masses. It is blue-green algae. It is considered as a super food because of its ability to synthesize the food efficiently. As it is loaded with various nutrients, so it is one of the most nutrient dense food on earth. Spirulina is use both as a dietary supplement to most of the people living nearby the alkaline lakes. It is a dried biomass of *Anthrospira platensis*. It grows in water and the process of harvesting of spirulina is easy and it can also be processed easily. Spirulina as it has many health benefits so it has gained popularity in human health and also could be used in various forms in our daily life. It is a superfood which is green in colour and comes in powder form but which is actually an algae.

Spirulina can replenish and can occur in areas in which there is poor or unbalanced animal fodder. It can be cultivated in barren lands without even consuming valuable or clean fresh water and even they can uptake and concentrate the inorganic carbon, these features make them superior to the terrestrial conditions. Spirulina which is considered as one of the superfood is loaded with nutrients and antioxidants.

They benefit the brain and our body. It contains proteins, vitamin B1, vitamin B2, vitamin B3, copper, iron and also decent amount of magnesium, potassium, manganese etc. They also provide the essential amino acids that our body needs. They also protect against oxidative damage as it is a good source of antioxidants. The main active component of spirulina is phycocyanin which helps to inhibit the production of inflammatory molecules. It is also use in therapeutic preparations and also for the cattle and the poultry feeds. Spirulina can lower triglycerides and “bad” LDL cholesterol and may raise “good” HDL cholesterol and spirulina is also effective against a precancerous lesion of mouth called OSMF. It is also a good for muscle building.



Fig 2:- Powdery form of spirulina

Safety issues for Spirulina

Spirulina is safe to use but may cause allergy, headache, insomnia, muscle pain, etc. People suffering from phenylketonuria should avoid the intake of spirulina. Spirulina which is contaminated with microcystin has various toxicity which may lead to liver damage, nausea, vomiting, thirst, weakness, shock and even death. It may also be associated with the onset of some diseases like dermatomyositis, autoimmune blistering disorder.

Detoxification of some toxic minerals

Spirulina which is also known as a blue green algae has a unique quality to detoxify or to chelate the toxic minerals. It was found that it contains some bioactive molecules which could neutralize or detoxify toxic and the poisonous effect from the heavy metals and arsenic from food and water. It contains gamma-linolenic acid, which is an anti-inflammatory substance. So, spirulina is used to chelate the poisonous effect of heavy metals from the environment also and could remove at least 70% of DDT from water.

Conclusion

Spirulina, the superfood has the potential of being a wonder food supplement. It shows great diversity and higher concentrations of nutrients as compared to other food sources. Many studies have been performed on the spirulina and its effect on both the humans and animals. Besides many of its health benefits some might also have some adverse effects on the body. Spirulina is easy to cultivate and people could attain its benefit by adapting it at their home yard. Further, many more scientific studies are going on to meet its various phases and to meet the desired requirements.

References

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