

## Spirulina production (Rural based technology)

### INTRODUCTION

Spirulina is a simple Cyanobacterium (blue green algae) that grows naturally in fresh water. It has been effectively promoted as a natural health and slimming food in the market. Studies carried out by different agencies showed that administering Spirulina at a particular level indicated immense progress in anemia diabetes, healing of wounds and lowering of cholesterol. Products characteristics are:

- i) Protein content in the product is higher than that of any another food.
- ii) Product has excellent source of Vitamin A,B,C,E and bio-tins
- iii) Spirulina is the richest vegetarian source of vitamin B12 available
- iv) Spirulina also contain Poly-unsaturated fatty acids and very little cholesterol
- v) Good source of beta-carotene and also rich in iron content.

### USES

- Protein supplement in diets for malnourished children and adults
- Protein supplement in feeds for poultry, cattle, pig and aquaculture
- Health food
- Food colorant
- Medicine in therapeutic preparation
- Enriching the feed in sericulture

A natural package of proteins, vitamins and minerals, Spirulina is extremely popular as a health food. Without any side effects, and non habit- forming. Spirulina tablets are taken by busy executives in the US AND Japan, as they are by sportsmen, trekkers and joggers for instant energy synthesis. Since Spirulina provides all the essential nutrition without excess calories and fats. Spirulina tablets are taken by those wanting to control obesity. In china is marketed as a weaning food, supplementing rice.

### RAW MATERIAL

Selected strains (algal culture) and nutrients

### PLANT AND MACHINERY

**Principle equipments:** Cement tanks, Cloth filter, Trays Aluminum,

**Auxiliary equipments:** Microscope, Storage bins with lid, Trolleys, Balance, HDPE bags, handling vessels for raw material handling.

a) Land & Land development	2000 m <sup>2</sup>
b) Building and civil works	50.00
c) Plant and machinery	Rs.3,10,000

### PRODUCTION CAPACITY- (estimate)

Suggested economic capacity : 1Ton /Annum

Working : 300 Days /annum

Optimum capacity utilization : 70%

### TECHNOLOGY / MANUFACTURING PROCESS -AVAILABILITY

The technology for Spirulina production has been developed at CFTRI, Mysore using appropriate equipment optimal product recovery of right quality. The institute has the necessary expertise to provide technical assistance and guidance for setting up the project and implementation, under technical consultancy arrangements.