General questions on the opportunity of the « spirulina » proposition :

1. « Should one not first of all master techniques which are well known before introducing new ones? »

The "spirulina" proposition does not subsitute itself to classic food production; it is a complement, a most interesting development. Moreover, in many instances classic techniques, as well mastered as they may be, are directly responsible for malnutrition: classic agriculture focusing exclusively on exports, ruinous for water and soil, polluting the environment.... There are too many examples of excellent agricultural intentions leading directly to salinisation of soils, to erosion and desertification. To refuse agricultural innovation because one should "first of all master what is known" seems like refusing Internet connections for Africa on the pretext that postal services must first be improved.

2. « Fruit and vegetables are enough to improve nutrition : why look elsewhere? »

Here again, spirulina is not a replacement but indeed a complementary product. Spirulina can be considered as a kind of "super-vegetable", with the following immense advantages compared to classic kitchen gardens:

- Daily production, 365 days a year
- No insects or diseases, thus no needs for pesticides
- Water requirements about ten times below those of vegetables
- No need for fertile soil : rock or low grade soil is perfectly convenient
- Storeable for years while maintaining its nutritional properties intact
- High assimilability demonstrated, without need for cooking

3. « The micro-elements most frequently lacking (iron, vit-A and iodine) cost almost nothing. Would adding them to the *normal diet not be cheaper than a programme of production/distribution of spirulina ? »*

Adding micro-elements to food (which is called "fortification") is not a durable solution. It requires import of pharmaceutical products, but also centralisation of staple food products in order to "fortify" them. And then they have to be re-distributed.... Perfectly justified in cases of emergency, such fortification is more expensive than it seems : not because of the price of the micro-elements, but because of the infrastructures required, the logistics, as well as the minute controls that are indispensible to avoid danger of over-dosing. Moreover, the impact on local economies become problematic when staple food products (oil, flour, etc) compete – on the basis of large publicity campaigns – with small local productions.

4. « Is spirulina not too complicated ? »

Technically, spirulina production requires much less know-how than growing rice. The problem is not complexity, but novelty: according to the level of education, basic training of between one to four weeks is essential (to be compared with years of learning classic agricultural techniques).

5. «Are the necessary ingredients easy to find locally ?»

Spirulina cultivation requires only one ingredient which is not part of classic agricultural fertilizers : sodium bicarbonate. This product is however rather frequent since it is used in animal food production and other areas. It can also be replaced by wood ash. As far as the other "fertilizers" are concerned, spirulina requires nitrogen, phosphoric acid and potassium as used in agriculture ; but here again, Antenna

Technology research has shown a large number of possible alternatives (see JP Jourdan's manual for details).

6. « How is spirulina accepted as a food ? »

Contrary to current apprehensions, experience has shown that spirulina (in the small doses prescribed) is accepted without any problem by those who need it. In fact, the very young children pose the reverse problem: the literally devour any spirulina left within their reach...

7. « Is malnutrition not first of all a political rather than a technical problem ? »

The "spirulina" proposition in itself contains a highly political aspect: it advocates LOCAL production, aimed at nutritional autonomy for those with the lowest revenues. This technical means could therefore undermine the disastrous consequences of certain national and international politics. Strenthening food autonomy also means opposing the stronghhold of the multinational grain enterprises, the fast food cartels and other dealers in synthetic vitamins.