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Strain Selection of Spirulina Alga Suitable for Mass Production

Interim Report No. 4

by

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The main activity of the project is now in the attempt to evaluate the biological preformance of some Spirulina strains isolated from water reserviors in north-east Thailand under local conditions.

Nine ponds of algae, each of 3 m2 contains 450 liters are used to study two harvest methodologies: a - a frequent harvest, every 1-2 days; b - a less frequent harvest, once every 5 days. This study will continue the year around and will provide us with operational information for north-east Thailand.

A visit to Thailand on September 1988 is planned by one of the P.I. to evaluate data and help in final plans to build the demonstration pond in Kon-Ken.

A typical data collection and measurements is illustrated in the following table.

pond 1

		temperrature			OXIGEN				dry	chlorophyll	
	date	water	AIRmax	AIRmin	(ppm.)	(%sat)	pH	OD	weight	A	PROTEIN
mar 18		24	34	25			9.65	0.284	424	3.53	5.104
	19	25	36	27	21		9.74	0.392	132	2.8912	4.136
	20	25	37	26	22.1	264	9.75	0.56	388	4.031	4.312
	21	28.8	36	25	17	218	9.8	0.632	424		
	22	28.8	37	27	16	207	10	0.772			
	23	28.7	36	27	14.4	186	10.1	0.855			
	24	28.8	37	27	15.8	205	9.7	0.935	512	8.2566	9.3238
	24							0.317			
	25	28.2	34	26	21.7	274	9.89	0.378			
	26	31.5	36	26	24.7	367	9.95	0.51			
	27	27	36	25			9.9	0.626			
	28	28.8	36	26	16.9	219	9.96	0.744			
	29	30.3	36	24	19.1	250	9.99	0.83			
	30	27.2	37	25	15.7	193	9.9	0.89			
	31	27.4	37	25	13.6	170	9.6	0.945	624	10.1887	8.8
	31							0.286			
apr 1		28.7	37	26	20.2	240	9.35	0.344			
	2	29.6	37	27	21.6	280	9.25	0.44			
	3	30.7	36	26	22.3	293	9.1	0.564			
	4	29.1	36	25	15.2	197	9	0.654			
	5	28.7	35	27	13.3	169	9.12	0.7			
	6	29.2	37	27	15.3	182	9.14	0.768			
	7	30	38	27	13.4	174	9.1	0.9	664	8.3261	5.456
	7							0.208			