

Table 1 Average values of physico-chemical characteristics in (a) rearing water and sediment ( $\pm$ SD; n=6), (b) Source water (creek) ( $\pm$ SD) during the cultivation of *Penaeus monodon*

Days of Culture (doc)	Water						Sediment		
	Temperature (°C)	Salinity	pH	Eh	Dissolved oxygen (mg L <sup>-1</sup> )	Particulate organic carbon (g C m <sup>-3</sup> )	pH	Eh	Organic matter (mg g <sup>-1</sup> dry sed.)
(a). Shrimp ponds									
0	22.2 $\pm$ 0.4	8.7 $\pm$ 0.2	8.0 $\pm$ 0.1	68.9 $\pm$ 2.1	7.7 $\pm$ 0.0	4.2 $\pm$ 0.1	6.2 $\pm$ 0.2	95.5 $\pm$ 1.1	10.2 $\pm$ 2.0
15	23.3 $\pm$ 0.4	13.2 $\pm$ 0.5	8.0 $\pm$ 0.1	42.2 $\pm$ 13.7	5.3 $\pm$ 0.4	4.6 $\pm$ 0.3	6.7 $\pm$ 0.2	26.8 $\pm$ 2.6	17.6 $\pm$ 3.9
30	28.3 $\pm$ 0.4	13.9 $\pm$ 0.4	8.0 $\pm$ 0.1	104.5 $\pm$ 0.2	4.9 $\pm$ 0.2	4.5 $\pm$ 0.0	6.6 $\pm$ 0.3	100.7 $\pm$ 8.1	22.2 $\pm$ 5.6
45	28.3 $\pm$ 0.4	14.1 $\pm$ 1.2	7.3 $\pm$ 0.2	27.9 $\pm$ 0.2	5.5 $\pm$ 0.2	8.8 $\pm$ 1.7	6.4 $\pm$ 0.2	56.6 $\pm$ 3.5	18.4 $\pm$ 4.4
60	29.0 $\pm$ 0.0	20.4 $\pm$ 1.4	7.7 $\pm$ 0.2	119.4 $\pm$ 4.3	4.7 $\pm$ 0.3	25.2 $\pm$ 8.4	6.6 $\pm$ 0.3	116.7 $\pm$ 2.0	9.6 $\pm$ 6.6
75	29.3 $\pm$ 0.4	23.5 $\pm$ 2.8	7.7 $\pm$ 0.1	142.8 $\pm$ 3.2	5.2 $\pm$ 0.5	12.0 $\pm$ 7.3	6.5 $\pm$ 0.2	127.7 $\pm$ 1.1	46.9 $\pm$ 8.2
90	28.3 $\pm$ 0.4	29.4 $\pm$ 2.8	7.7 $\pm$ 0.1	108.9 $\pm$ 4.1	6.1 $\pm$ 0.7	12.4 $\pm$ 2.3	6.7 $\pm$ 0.1	100.1 $\pm$ 5.1	44.8 $\pm$ 21.5
105	31.3 $\pm$ 0.4	30.5 $\pm$ 0.0	7.5 $\pm$ 0.2	98.6 $\pm$ 0.5	5.4 $\pm$ 0.4	12.7 $\pm$ 3.4	6.4 $\pm$ 0.1	107.1 $\pm$ 10.7	38.8 $\pm$ 14.7
120	31.3 $\pm$ 0.4	28.5 $\pm$ 0.3	7.7 $\pm$ 0.0	100.2 $\pm$ 1.6	4.4 $\pm$ 0.3	22.4 $\pm$ 0.8	6.5 $\pm$ 0.2	122.9 $\pm$ 3.3	58.1 $\pm$ 10.6
135	32.5 $\pm$ 0.4	34.0 $\pm$ 0.2	7.8 $\pm$ 0.1	102.6 $\pm$ 1.8	5.1 $\pm$ 0.3	22.6 $\pm$ 6.0	6.2 $\pm$ 0.3	105.3 $\pm$ 6.9	56.1 $\pm$ 6.7
(b). Source water (creek)									
0	23.0 $\pm$ 0.0	13.2 $\pm$ 0.1	7.5 $\pm$ 0.2	62.9 $\pm$ 12.2	6.2 $\pm$ 1.1	4.8 $\pm$ 0.7	6.5 $\pm$ 0.4	74.3 $\pm$ 12.8	12.2 $\pm$ 1.2
15	24.0 $\pm$ 0.0	13.5 $\pm$ 0.4	7.6 $\pm$ 0.0	28.8 $\pm$ 4.8	4.7 $\pm$ 0.7	6.0 $\pm$ 1.9	7.1 $\pm$ 0.0	42.4 $\pm$ 24.4	8.8 $\pm$ 8.9
30	29.0 $\pm$ 0.0	17.6 $\pm$ 1.5	8.0 $\pm$ 0.0	99.9 $\pm$ 3.4	5.0 $\pm$ 0.4	4.2 $\pm$ 0.2	6.9 $\pm$ 0.1	106.1 $\pm$ 2.0	22.6 $\pm$ 7.1
45	28.0 $\pm$ 0.0	18.4 $\pm$ 1.6	7.5 $\pm$ 0.1	30.2 $\pm$ 3.4	4.8 $\pm$ 0.0	7.7 $\pm$ 3.6	5.8 $\pm$ 0.7	53.2 $\pm$ 9.9	12.6 $\pm$ 3.6
60	29.5 $\pm$ 0.0	23.0 $\pm$ 0.6	7.6 $\pm$ 0.1	113.9 $\pm$ 2.2	4.6 $\pm$ 0.5	24.3 $\pm$ 2.7	6.1 $\pm$ 1.0	107.3 $\pm$ 4.9	47.7 $\pm$ 7.1
75	29.5 $\pm$ 0.0	29.8 $\pm$ 3.9	7.9 $\pm$ 0.1	133.4 $\pm$ 1.9	4.9 $\pm$ 0.6	17.9 $\pm$ 7.0	6.8 $\pm$ 0.0	124.0 $\pm$ 1.8	67.8 $\pm$ 35.5
90	28.2 $\pm$ 0.3	35.0 $\pm$ 0.4	7.8 $\pm$ 0.1	97.3 $\pm$ 2.9	5.1 $\pm$ 0.0	11.9 $\pm$ 4.9	6.6 $\pm$ 0.3	86.1 $\pm$ 4.6	116.8 $\pm$ 1.8
105	31.5 $\pm$ 0.0	30.7 $\pm$ 0.3	7.7 $\pm$ 0.2	96.9 $\pm$ 0.5	6.0 $\pm$ 0.7	7.8 $\pm$ 1.0	6.6 $\pm$ 0.2	96.8 $\pm$ 5.2	50.2 $\pm$ 3.5
120	32.0 $\pm$ 0.0	28.7 $\pm$ 0.8	8.0 $\pm$ 0.2	99.2 $\pm$ 2.7	4.6 $\pm$ 0.5	38.3 $\pm$ 21.0	6.5 $\pm$ 0.2	121.2 $\pm$ 4.4	54.0 $\pm$ 19.5
135	33.5 $\pm$ 0.0	31.0 $\pm$ 0.2	7.9 $\pm$ 0.0	104.6 $\pm$ 3.5	5.2 $\pm$ 0.1	8.6 $\pm$ 2.2	6.4 $\pm$ 0.3	104.1 $\pm$ 4.2	70.3 $\pm$ 3.5