



## PERFORMANCE BENCHMARK ADDENDUM TO THE MOU

CLIENT	<b>Chungshan Shrimp Hatchery (via Chungshan Agriculture Department)</b>
LOCATION	<b>Chungshan, PRC</b>
FURTHER INFORMATION ON CLIENT	The Chungshan Agriculture Department under Mr. Li is one of the leading income generators for Southern China. Li has granted authorization to conduct beta trials on Kiko in shrimp fisheries. KTL hopes this will lead to beta trials in other areas of farming, including poultry.
PROJECT COORDINATORS	<ul style="list-style-type: none"> <li>- <b>Mr. Steven See</b>, Sales Distributor for KTL</li> <li>- <b>Mr Fung Han-Kwong</b>, Hatchery Owner</li> <li>- <b>Mr. Li's former students</b>, On-Site Project Management</li> </ul>
DATE	<b>March 5, 2012</b>
OBJECTIVE	<b>To reduce mortality in shrimp fisheries in the fry to juvenile growth period.</b>
PROCEDURES	<p>The beta trial will be conducted employing a <b>control hatchery (no Kiko)</b> vs. a <b>test hatchery (using Kiko)</b>. In the test tank(s), two (2) Tritan cartridges suspended is the determined dosage. All other factors should be kept the same to establish a true test vs. control.</p> <p><b>BACKGROUND ON MOTHER PRAWNS:</b> The hatcheries <b>purchase</b> eggs from a farm in Dongmun, PRC. The mother prawns lay about 12,000–15,000 eggs at a time. One male prawn is used to mate a ratio of three (3) females. The Dongmun source is approx. one hour from the Chungshan trial. In future, KTL will consider applying the technology in the spawning phase as farmers stated only 85% of eggs laid, actually hatch to fries. (<i>A reconfirmation of this figure is needed.</i>) The business model and trial outlined here, however, concern the <b>fry to juvenile phase of growth</b> only.</p> <p><b>THE TRIAL – FRY TO JUVENILE PHASE:</b> Eggs are laid the size of a needle tip and farmed in closed, heated, concrete tanks. Within 20 days, eggs hatch and fries grow to about 0.8–1.0 cm. <b>The mortality rate in this 20-day period, for even a well-managed farm in this region, is about 20%.</b> (For poorly managed farms, mortality rates are closer to 70%.) Fries and juveniles are fed a diet of boiled eggs mixed with freshly hatched larvae of a select species of worm. This hatchery farm has ten (10) breeding tanks and uses 2.5 kg (or: 5 catties) of feed, five (5) times a day, per tank.</p> <p><b>GROWTH TANKS:</b> Each of the 10 tanks measures 9m<sup>2</sup> (square meters) and 1m high, so we would assume 9 tons of water or 9m<sup>3</sup> (cubic meters) per tank. There are also two (2) additional tanks at a slightly bigger capacity of 15m<sup>3</sup> each. Dosage for the trial (based on water volume) has been determined at two (2) Tritan cartridges suspended per tank</p> <p><b>In the beta trial, which determines cost and performance benchmarks for the anticipated service contract, only one of the 10 tanks will be isolated for the test (i.e. the beta phase requires 2 KCC only). In this beta phase, all other tanks will serve as the control as they should be reflective of the norm. If successful, KTL and Client will expand into a service agreement.</b></p> <p><b>WATER:</b> The water is a combination of <b>seawater</b> (collected near the oceanic regions of Macau/Hong Kong) imported at a cost of RMB ¥10 per cubic meter (m<sup>3</sup>), <b>mixed with fresh underground water</b> to a <b>brine concentration of about 10%</b>. This water is constantly heated by steel tubing/piping under each tank to a temperature of <b>33°C</b>. <b>pH</b> is about <b>8.2</b>, due to ammonium wastes discharged by the fries. (<i>It is the opinion of KTL that this pH level could vary as the juveniles grow and discharge more waste.</i>) Fries are grown for 20 days to juveniles, and then sold to other shrimp farms to grow for another four (4) months in a pond until the shrimps mature to full market size/weight.</p> <p><b>FRY GROWTH:</b> As mentioned, <b>fries grow to its juvenile size in 20 days</b>, then harvested (i.e. 20</p>



	<p>days = one rotation.) <b>Each 9m<sup>3</sup> tank houses about 1,000,000 fries.</b> The farm does not have a policy in place to check ammonia content in tanks and only assumes pH levels remain constant. However, the bottom of each tank is cleaned daily by scraping with a squeegee to remove eggshells and ammonium wastes. Water/brine composition and temperature are key factors in survival, thus, the room is completely sealed off, and intake air is pumped in through an underground piping system.</p>																																																								
<p>PROJECTED REVENUES / BENCHMARKS FOR THE SERVICE CONTRACT</p>	<p>The following revenue projections again, deal only with the <b>fry to juvenile phase</b> of growth.</p> <p><b>PRICE: 10,000 juveniles sold at RMB ¥330 (ex-hatchery)</b> (or: RMB ¥3,300 for 100,000 juveniles.)</p> <p><b>CURRENT MORTALITY RATES (I.E. THE CONTROL):</b></p> <p>Breakdown <u>per single rotation</u> at current <u>20% mortality</u>:</p> <table border="1" data-bbox="334 737 1528 961"> <thead> <tr> <th colspan="2">Per 9m<sup>3</sup> Tank</th> <th colspan="2">Total Across 10 Tanks</th> </tr> </thead> <tbody> <tr> <td>No. of fries at start:</td> <td>1,000,000 fries</td> <td>No. of fries at start:</td> <td>10,000,000 fries</td> </tr> <tr> <td>Mortality %:</td> <td>20%</td> <td>Mortality %:</td> <td>20%</td> </tr> <tr> <td>Loss (in nos.):</td> <td>200,000 fries</td> <td>Loss (in nos.):</td> <td>2,000,000 fries</td> </tr> <tr> <td>Survival (in nos.):</td> <td>800,000 fries</td> <td>Survival (in nos.):</td> <td>8,000,000 fries</td> </tr> <tr> <td>Current Earnings (in ¥):</td> <td>¥26,400</td> <td>Current (¥) Earnings:</td> <td>¥264,000</td> </tr> <tr> <td>Current Loss (in ¥):</td> <td>¥6,600</td> <td>Current (¥) Loss:</td> <td>¥66,000</td> </tr> </tbody> </table> <p>With 12-15 rotations per year, the current <u>total annual loss</u> is between RMB ¥792,000–990,000.</p> <p><b>TARGET:</b> KTL wants to help the farm recoup some of the above losses by adjusting the mortality rate to 10% with our better water or up to zero (0) loss at best. (For future projects, poorly managed farms can adjust this to target 50% mortality from the normal 70%.)</p> <p><b>PROJECTED REVENUES WITH KIKO:</b></p> <p>Breakdown <u>per single rotation</u> at an improved <u>10% mortality</u>:</p> <table border="1" data-bbox="334 1297 1528 1522"> <thead> <tr> <th colspan="2">Per 9m<sup>3</sup> Tank</th> <th colspan="2">Total Across 10 Tanks</th> </tr> </thead> <tbody> <tr> <td>No. of fries at start:</td> <td>1,000,000 fries</td> <td>No. of fries at start:</td> <td>10,000,000 fries</td> </tr> <tr> <td>Mortality %:</td> <td>10%</td> <td>Mortality %:</td> <td>10%</td> </tr> <tr> <td>Loss (in nos.):</td> <td>100,000 fries</td> <td>Loss (in nos.):</td> <td>1,000,000 fries</td> </tr> <tr> <td>Survival (in nos.):</td> <td>900,000 fries</td> <td>Survival (in nos.):</td> <td>9,000,000 fries</td> </tr> <tr> <td>Earnings per tank (in ¥):</td> <td>¥29,700</td> <td>Total Earnings (in ¥):</td> <td>¥297,000</td> </tr> <tr> <td>Extra income (in ¥):</td> <td>¥3,300</td> <td><b>Extra income (in ¥):</b></td> <td><b>¥33,000</b></td> </tr> </tbody> </table> <p>At 12-15 rotations per year, the <u>total extra income annually</u> could be <b>¥396,000–495,000</b> if Kiko can drop mortality rates to just a 10% loss.</p> <p><b>In the best case scenario, if Kiko can save <u>all</u> fries from dying, eliminating the issue of mortality all together, then extra annual earnings would be RMB ¥800,000–1 million (rounded).</b></p>	Per 9m <sup>3</sup> Tank		Total Across 10 Tanks		No. of fries at start:	1,000,000 fries	No. of fries at start:	10,000,000 fries	Mortality %:	20%	Mortality %:	20%	Loss (in nos.):	200,000 fries	Loss (in nos.):	2,000,000 fries	Survival (in nos.):	800,000 fries	Survival (in nos.):	8,000,000 fries	Current Earnings (in ¥):	¥26,400	Current (¥) Earnings:	¥264,000	Current Loss (in ¥):	¥6,600	Current (¥) Loss:	¥66,000	Per 9m <sup>3</sup> Tank		Total Across 10 Tanks		No. of fries at start:	1,000,000 fries	No. of fries at start:	10,000,000 fries	Mortality %:	10%	Mortality %:	10%	Loss (in nos.):	100,000 fries	Loss (in nos.):	1,000,000 fries	Survival (in nos.):	900,000 fries	Survival (in nos.):	9,000,000 fries	Earnings per tank (in ¥):	¥29,700	Total Earnings (in ¥):	¥297,000	Extra income (in ¥):	¥3,300	<b>Extra income (in ¥):</b>	<b>¥33,000</b>
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Distributor's Name: Steven See

Test Partner's Name: <INSERT HERE>