

Executive Summary

Thailand's agricultural industry is under threat. Two years ago Avian Bird Flu dropped Thailand's chicken exports from Baht 40,470 million in 2003, to Baht 23,500 million in 2005. Now, shrimp export is under similar threat. The White Spot Disease, a viral disease that can kill an entire shrimp pond in seven days and can be easily spread on to other ponds, has affected the shrimp-producing countries of Brazil, China, and Mexico. Despite increasing demand for shrimp in the market globally, overall output is dwindling.

Farmers have had only one option for stopping White Spot Virus, antibiotics. Yet, the use of them is unacceptable to the EU and Japanese markets as they cause residues in shrimp meat which in the long run could cause cancer in humans. **BioShield** is the first all-natural, food-safe additive, vaccination for White Spot Virus. It contains naturally occurring bacteria, which help shrimp build up their immune systems during their growth stage. **BioShield** has been proven effective as an inoculation to White Spot Virus in laboratory trials, and is now ready for full-scale testing and commercialization. BioShield Co. Ltd. has been formed to commercialize this technology to protect shrimp farmers, and Thailand's shrimp industry. It will supply the Thai market, which has a potential value of Baht 5,030 million and could increase the further market potential in China, India, and Indonesia.

In addition to its technological advantage, BioShield will succeed because of an aggressive push and pull marketing strategies. "Push strategy" is to form an alliance with CPF in distributing the product domestically and internationally while using direct sales to reach other major feed producers in the Thai market. "Pull strategy" aims directly at farmers by educating them on the perils of White Spot and the way BioShield protects their business. Bioshield also has a **White Spot SWAT Team** to help inoculating the affected pond during the first sign of outbreak **at no cost**. Not only will the SWAT team help to establish loyal customers, but also generate positive word-of-mouth among farmers.

The management team consists of four recent graduates from the College of Management Mahidol University. One works extensively in the shrimp industry while an employee of CPF and should bring extensive industry contacts. The rest include two marketing specialists and a technical expert, who will oversee the operation. The team also includes Dr. Tim Flegel of Mahidol University's CENTEX-Biotechnology- Research-Center, the inventor of the proprietary **BioShield** process who will not only ensure the quality of the current product, but also help to devise follow-on products.

As a start, BioShield management team is investing Baht 2 million. We also seek for suitable strategic investors, who can 1) provide additional funding of Baht 40 Million for full-scale trials and initial start-up and 2) bring industry experience and necessary contacts. The projected NPV of the project is Baht 171 million, with an IRR of 163%. BioShield will offer 45% ownership and two seats (out of seven) on

the board of directors. If the profit level is met, investors will receive an annualized return of 36%. BioShield management anticipates two exit strategies for investors, IPO on the Market or a strategic sale to a multinational biotechnology or agriculture firm. Moreover, all stakeholders should also benefit from the protection of a key strategic industry for Thailand, and from helping ensure the livelihood for Thailand's farmers.