CHINA'S HYBRID RICE STORY-

SPEAKER: HENRY LIM BON LIONG

AN EXCERPT FROM A BIOGRAPHY ON HENRY LIM BON LIONG AND HIS CONTRIBUTION TO THE PHILIPPINE RICE PRODUCTION

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ABSTRACT

This lecture by Henry Lim Bon Liong focused on the development of the Philippines' first hybrid rice, SL-8H; a project spearheaded by Henry Lim and his agri-research institute, SL Agritech Corporation. The project sought to help alleviate rice deficiency problems of the Philippines with the help of professional Chinese agriculturist, Professor Yuan Long Ping. The talk highlighted the success of the production and brought to light the unifying relationship between China and the Philippines during the process of creating this hybrid innovation in local agriculture.

Keywords: *Hybrid rice*, *SL-8H*, *Philippines rice deficiency*

China's Hybrid Rice Story

The Philippines is primarily an agricultural country with a large percentage of Filipino farmers growing one of its important staple crops: rice. Despite this, the Philippines appears incapable of meeting its own demand for rice as evidenced by the large quantities of annual rice imports from other countries. According to Henry Lim, the International Rice Research Institute (IRRI) reports that the Philippines imported a total of 1.8 million tons of rice as of 2008. In 2010, imports reached 2.45 million, making the Philippines the largest rice importer. The question the Philippine world's government is trying to answer now is how to be self-sufficient and minimize spending millions of pesos on rice importation. This is where Henry Lim Bon Liong, the owner of Sterling Group of Companies, came in.

Henry Lim is a successful Chinese businessman in the Philippines, having attained a prestigious status through his paper enterprise. He was born in the Philippines to Chinese migrants, Lim Seh Leng and Maria Co Chiao Ti Lim. In 1976, his father passed away leaving Henry Lim, his mother and his siblings to take over the family business. Being the eldest in the family, Henry Lim had to take charge, and was soon able to expand the paper products of Sterling into a wide array of merchandise. It was not long before Henry Lim decided to venture into other industries, such as S.P. Properties, Inc., among others. But it was only when he had occasion to meet with former President Joseph Estrada that he was given the idea to venture into agriculture, specifically rice.

Initially, Henry Lim was not very attuned to agriculture nor was he familiar with the rice deficiency situation of the Philippines. But because of Estrada's enthusiastic plan to place agriculture as his first priority, Lim became curious about the matter as well.

Constantly researching, Lim eventually became determined in finding a solution to the crisis. His research brought him to discover China's food crisis in the 1950s up until the 1980s when the Chinese people suffered greatly from famine. The Chinese were eventually able to overcome this by prioritizing and promoting agricultural development. The Chinese thought of expanding their land area for farming which led them to cut down trees, burn grasslands, and other forms of land expansion strategies to commit to planting rice.

Significantly, the Philippines uses only 300,000 square kilometers of its land for agriculture. Of this, only 43,000 square kilometres is used for the production of rice. The problem of the country's rice deficiency, however, lies not only in the limited land area and incapability for land expansion but also in the increasing population of Filipinos.

As of last year, the Philippine population was an estimated 104 million with the annual growth rate of 1.873%. This indicates that the growing population has to be sustained by an increase in rice production as well. But because of an incapacity for land expansion, the country relies heavily on rice importation to sustain this growing demand.

With data gathered from his initial research, Lim travelled to China in search of a potential solution. Lim was thinking of the possibility of learning from the Chinese through their technological advancements in agriculture, which would then help Filipinos to produce hybrid rice – a possible remedy to the rice deficiency crisis in the Philippines. Additionally, this would also result in helping uplift Filipino farmers by turning them into efficient rice producers. Giving their crops higher yield would in effect give them means for a better life.

Why hybrid rice?

The difference between hybrid rice and regular rice is that hybrid rice yields higher results as it is a cross between two superior plant genes. With the use of these hybrid rice seeds, the Philippines will not only get to overcome land area limitation problems but also acquire the ability to sustain the growing population of Filipinos. The problem, however, was that hybrid rice was a relatively new venture for Philippine agriculture at the time. There was little or no knowledge at all in the process of developing a hybrid rice variety that was suitable to Philippine atmospheric conditions. But with an objective to improve the agricultural industry, Lim educated himself in the field and tried to find ways to locally create hybrid rice.

The Encounter with China's National Treasure

Through a common friend, Lim was able to meet and befriend China's hybrid expert, Professor Yuan Long Ping, at the latter's residence back in 1997. Seeing how passionate Henry Lim was, Professor Yuan Long Ping became interested in helping Lim bring his vision come to life. Hence, Professor Yuan Long Ping served as Lim's mentor by teaching Lim the secrets of the trade. Eventually, Professor Yuan Long Ping sent some of his top scientists to help in the research and production of hybrid rice in the Philippines.

The Struggle

Lim's success did not come until he overcame several mishaps in the first few years of production. With the help of Chinese agricultural scientists, Zhang Zhaodong, Professor Yuan Long Ping's best assistant, and with the assistance of Dr. S.S. Virmani of the

International Rice Research Institute (IRRI) in Los Banos, Lim started his first trial crop with different rice seed varieties provided by IRRI.

With the technical support and manpower, nothing seemed to stand in the way of the project's success. However, Lim's first attempt at creating hybrid rice was far from successful. During the first season of testing, around 75 varieties of Chinese rice crops were tested, but these ended up as failed experiments. Apparently, Chinese rice crops blossom faster than what was normally acceptable under Philippine conditions. Usually, it takes around 120 days for rice crops to flower. But because hybrid rice grows only in temperate regions, it was difficult to alter this characteristic to fit the country's tropical climate.

Trial tests continued for the next two years with such disappointing results that Lim almost gave up on his quest. But with the support of his family, especially his mother, Dona Maria, Lim was able to continue to with the project.

Along with the three scientists Professor Yuan Long Ping sent to the Philippines, Lim looked for a good location to perform the research, which they eventually found in Sta. Cruz, Laguna. The property was 40 hectares, ideal for rice production due to the availability of a good irrigation system. This property eventually came to house Lim's agricultural establishment, SL Agritech Corporation.

Triumph after the Tragedy

Production and research continued. As everything was starting to look more positive for Lim, fate struck him with a cruel blow. During a late night trip back home from a mall opening in Olongapo,

Henry Lim met a tragic car accident. A container truck hit the van he was in, killing his mother and younger brother in the process. Lim was seriously injured but survived the ordeal. The grief that he suffered from this tragedy was understandably great and it took Lim some time to recover from the event. Despite this, his company did not cease in its pursuit to develop the hybrid rice variety.

Not long after, however, they finally succeeded in producing a hybrid rice variety.

Lim recounted the story of Professor Zhang Zhaodong, the breeder of the SL-8H hybrid crop. At around 5:30 in the morning of November 17, 2001, Professor Zhang Zhaodong was awakened by what he thought was an earthquake. To his surprise, he saw Dona Maria standing by the foot of his bed. He thought he was only dreaming as it had already been two months since her unfortunate death. According to Professor Zhang, Dona Maria instructed him to go into the fields to inspect the flowers carefully. He did so as soon as the sun came up. To his great surprise, right there on lot number 8, the flowers that had grown were stabilized, signifying the end of their long search. According to him, it was as though someone led him towards that specific lot. Later that day, Professor Zhang called Lim and informed him of what had happened.

SL-8H

The hybrid rice variety on lot number 8 was later called SL-8H, after Lim's father, Seh Leng, and the lot number where it was found.

It was momentous for Lim and all those who were part of the journey, especially when Professor Yuan Long Ping came to the Philippines to inspect for himself the SL-8H hybrid rice variety and

gave his approval that the quality was superb. The development of the hybrid rice completely shifted the hopes of several politicians and Filipino farmers to sustaining not only themselves but the country as well.

Seed production began in the succeeding months. Seeds were sent to farmers around the Philippines for testing. After the harvest season was over, farmers went back to Lim with eight tons of rice. Harvests increased: what used to be only three tons per hectare became a whopping 14 tons of rice harvest per hectare, with some famers producing an even higher yield.

Spreading the cause

Lim received a lot of attention from the government after the success of his hybrid rice variety. It was in fact, very supportive of the production of hybrid rice in the Philippines. Lim recounted the instance when he was invited to join in an official trip to Japan with former President Gloria Macapagal Arroyo, together with some of the members of the government. It was on this occasion that Lim was able to meet Secretary Luis Lorenzo Jr., who was the presidential adviser for agriculture and job generation at the time. Lim talked about hybrid rice and its benefits, i.e., job-generation and improvement of Filipino farmers' welfare. This caught the secretary's interest and led to his becoming an advocate for hybrid rice. Secretary Lorenzo eventually became secretary of agriculture, who promoted hybrid rice.

Also during President Gloria Arroyo's administration, she had established a hybrid rice program for the Philippines, which SL Agritech Corporation supported and participated in. The program not

only increased Filipino farmers' harvest yields but also gave more opportunities for employment in the rural areas. SL-8H has, thus, been giving hope to numerous farmers in the country since its discovery.

Lim recounted the times when farmers would come up to him to express their gratitude for the hybrid rice. With the use of SL-8H rice, they were able to send their children to school and even through college – quite a feat for farmers who were hard-pressed in supporting their families before the introduction of SL-8H.

The success of hybrid rice in the Philippines was not confined to the country alone. Eventually, Lim expanded the knowledge for the production of hybrid rice to neighbouring Southeast Asian countries such as Vietnam, Malaysia, Indonesia, and even outside the ASEAN circle to as far as Madagascar and Bangladesh. These countries have similar weather conditions as the Philippines.

SL-Agritech Corporation's SL-8H thus, did not only benefit Filipino farmers. Farmers from different countries who tried and tested the hybrid rice variety were very happy with the results of the hybrid rice, much like Filipino farmers. Later on, Lim described it as super hybrid rice, guaranteeing high yield, medium maturity, good disease resistance, and excellent grain quality.

Other products

Aside from SL-8H rice, SL-Agritech Corporation was able to create more brands of hybrid rice selections, all under the name of Dona Maria. These include premium grade quality Jasponica rice, Jasponica brown rice, and Miponica rice. SL-Agritech also promoted the use of agri-chemical products which help maintain the quality of rice crops. The company also branched out to farming mechanization products such as tractors and other rice-related machineries.

Future sustainability for the Philippines

These successes would not have been possible without the help of Professor Yuan Long Ping whose simple wish was to see that the development of hybrid rice may bring prosperity to humankind. With the breakthrough of SL-8H, the hard work of farmers has brought them more prosperity.

Hybrid rice has also contributed significantly to the Philippine economy. The high-yielding results from Filipino farmers' produce alone contributed to the progress of rice production in the country. According to Henry Lim, farmers make around 100,000 pesos per hectare with the use of his hybrid rice seeds. So attractive was income generated from these seeds that Lim even lost his vice president for techno demo, Tom Jimenez, to agriculture. Jimenez left his job to become an SL-8H farmer himself. Just like Jimenez, every SL-8H farmer has become an entrepreneur by marketing and selling their own produce. With people getting motivated to farm rice, Lim is one step closer to accomplishing one of his goals of a self-sufficient rice-producing Philippines.

What makes Henry Lim truly fulfilled however is not the economic aspect of his contributions to Philippine agriculture, but his contributions to the Filipino farmer: how he was able to give them hope of a brighter future for their children, how he raised their standard of living, and how they now look forward to planting rice despite the hard work it entails.

About the Speaker: Mr. Henry Lim Bon Liong is the chief executive officer of Sterling Paper Group of Companies, S.P. Properties, Inc., SL Agritech Corporation as well as a member of the governing council of the Philippine Council for Agriculture, Forestry, and Natural Resources Research and Development. Mr. Henry Lim Bon Liong made his mark in the paper business and engaged in producing hybrid seed in the Philippines.

Editor's note

Mr. Henry Lim Bon Liong's lecture was delivered on December 6, 2012 at the Ateneo de Manila University Faber Hall function room. This is an excerpt from the thesis, A Biography on Henry Lim Bon Liong and His Contribution to the Philippine Rice Production. The author, Bambi H. Barcelona, is a Chinese Studies major at the Ateneo de Manila University.