

TECHNOLOGY TRANSFER IN THE SÔNG HẬU STATE FARM

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The Sông Hậu State Farm was formed in April 1979 on an area of 6,982 hectares in Ô Môn District, Cần Thơ Province. The Farm has a good system of irrigation and waterways, many warehouses and factories processing farm products. At present, the Farm becomes a trading center that supplies a wide range of goods and services needed for the agricultural production in the Mekong Delta.

1. Application of technical advances

a. Irrigation system: Located in the flood plain, the Farm has spent a lot of money and energy building the irrigation system that can supply fresh water, drain flood water and reclaim sour land. The system is also used as waterways along which residential areas were built. The Farm has 2,640 big pumping machine and 360 small ones used for controlling the supply of water and drainage. These facilities allow the Farm to survive and develop many heavy floods in 1995, 1996, 1997 and 2000.

b. Production of seed and youngling: The Farm has a 20-hectare field used for producing new strains of rice. These new strains are developed by the Mekong Delta Rice Institute, South Agronomy Institute and Cần Thơ University. From 1998 on, the Farm had a contract to produce new strain for the Mekong Delta Rice Institute. The Farm experiments some 100 new strains a year and supplies them to some 300 families working in the Farm. On an area of 1,000 hectares the Farm supplied in 2000 some 3,000 tonnes of new strains of rice to families in the Farm, 1,000 tonnes to Cambodian importers and 1,000 tonnes to peasants in Cần Thơ.

In addition, the Farm also produces many fruit seedlings to orders placed by the Cần Thơ University, Long Định Fruit Production Institute and Ô Môn Rice Institute. The Farm supplies every year some 100,000 fruit seedlings, 1,000,000 perennials and 30,000 flower seedlings.



As for animal husbandry, the Farm keeps 200 pigs, 10,000 head of poultry, and 200 dairy cows; supplies 50 million young fish and 400 million juvenile fish and produces some 15,000 tonnes of animal feed a year.

c. Mechanization of agricultural production: In 1998, the HCMC Technology University produced a sowing machine to the order placed by the Farm. Up to 2000, the Farm has mass produced the machines and helped equip members of the Farm with these machines. At present, this technique is applied to some 3,000 hectares of rice. Many farm machines are also introduced to the Farm: reaper, combine harvester, thresher, etc. the Farm is cooperating with the HCMC Farm Machinery Center to work out harvesting techniques suitable to conditions in the Mekong Delta.

The Farm has built three drying yards with a total area of 20,000 square meters and helped laborers in the Farm do the same. The Farm has a drying house with installed capacity of 80 tonnes a day and helped its members to build 40 drying kilns that could handle 400 tonnes a day. At present, the Farm could dry rice

for local peasants. In addition, the Farm also built a system of warehouses with a storing capacity of 100,000 tonnes and 10 rice mills that could process 300,000 tonnes of rice for export every year.

d. Effects of the technology transfer:

The Farm has helped disseminate new techniques and farming methods to surrounding provinces, thereby diversifying the agricultural production in the Delta. The following are some remarkable effects of new technology:

- Better rice yield: According to rough estimates, the use of new rice strains helps increase the rice yield by 10%; sowing machines reduces some 100 kg of seed per hectare and increase the rice output by 500 - 1,000 kg per hectare. The IPM and new fertilizing methods allow the Farm to save some VND200,000 per hectare in a crop.

- Diverse farm products: The introduction of new strains of plants and animals allows the Farm to diversify its operations. Intensive farming puts an end to the rice monoculture, leads to production of a wide range of farm products (rice,

fish, shrimp, pig, poultry, perennials, fruits, etc.) and helps the Farm keep on developing regardless of fluctuations in the farm product market. Technical advances also helps the Farm supply many services and agricultural materials, engage in the processing industry and have business relation with partners outside the Mekong Delta.

- Support for local production: Equipped with various machines and processing facilities, the Farm could supply various services and materials to local peasants and authorities. For example, in 2000 and in Ô Môn District alone, the Farm undertook 66 irrigation works that were worth over VND2 billion. The Farm also engaged in processing farm products (rice, timber, aquatic products, meat and egg, etc.). New strains of plants and animals supplied by the Farm helped local peasants diversify their products. The Farm, in cooperation with the Ô Môn Rice Institute and Cần Thơ University, gave many training courses to technicians and officials from Ô Môn, Thốt Nốt and many other districts of Cần Thơ Province. The transfer of technology to districts also gets support from local civic organizations.

2. Lessons from application and transfer of technical advances in the Farm

The Farm really leads the way in the application and transfer of technical advances to the Mekong Delta. To gain these achievements, the Farm makes the best use of two fac-

tors that only some other state farms could enjoy:

- The Farm is located in Cần Thơ where possesses most potentials for techno-scientific development. The most important sources are the Cần Thơ University and Mekong Delta Rice Institute.

- The Farm is supported by local banks and experts recruited by the provincial government. From 1992 on, the Farm could export and import directly, which helps it to get access to technical advances and more trading partners. Its public image was enhanced after May 17, 1999 when the PM directed a study of its developments and achievements.

The following lessons could be drawn from its success:

(1) Modernization of infrastructure is a precondition for the application of technical advances: The Farm has spent a lot of money and energy in developing the irrigation and waterways system and building facilities for R&D activities to smooth the flow of new techniques.

(2) Relation with research institutes is necessary: Cooperation between the Farm and these institutes also aims at solving problems arising from production realities. This cooperation is sometimes based on personal relations: a technician working for the Farm usually goes to his teacher in the Cần Thơ University for advice when meeting with problems.

(3) All four factors of technology are fully transferred: When receiving a technology, the Farm always asks

for machine and equipment, training course, information and organizational skill, instead of merely buying a new machine or production line. These factors allow it to make the best use of new technology and know how to transfer it to local peasants.

(4) Technology transfer must be done properly: After successful application of technology, the work of transferring it to others is done on a larger scale: the Farm carries out demonstration, supplies guiding materials and gives training courses before letting peasants do it themselves. Additional training and information are given continuously to help transfer all necessary know-how.

(5) Full attention is paid to the development of human resource: The Farm couldn't be so successful without an army of technicians. At present, the Farm has 371 technicians and middle managers including 120 engineers, 80 intermediate technicians and seven managers with master degrees. This army has helped 2,800 families of Farm members over years to apply technical advances to their business. This human resource is something other state farms lack.

(6) Support from local farmers is important in the long run: By transferring new technical advances, the Farm helped local peasants to escape poverty and ignorance, and at the same time, generated sources of raw materials for its processing facilities and customers for its services. Mutual benefits are a basis for long-term and sustainable development. ■

