Multinational Agribusinesses: Have Technology, Will Travel

China may be on the brink of a dramatic jump in soybean and corn yields over the next few years. As we have been writing, China's government has stepped up its investment in agricultural research, rural infrastructure, and institutions. But it's the multinational agribusinesses with their freshly arriving investment and logistical expertise that could provide the match to set China's corn and soybean yields on fire.

The potential for increased corn and soybean yields is evident when one compares China and U.S. yields. China's corn yield is about 43% below the U.S. and China's soybean yield is about 32% less.

It is one thing if China's corn and soybean yields lag U.S. yields because of inherently adverse soil and climatic conditions that cannot be overcome. If, on the other hand, yields are being depressed by lack of fertilizer and inadequate control of weeds and pests, that is quite another.

We know that it is not unreasonable to think that the time could come when China could match U.S. corn and soybean yields because when it comes to wheat and cotton their yields exceed U.S. yields by a wide margin. What, then, are the factors that limit China's corn and soybean yields?

Bob Wisner, writing in the August 18, 1999 Doane's Agricultural Report newsletter, puts "better weed control, improved fertilizer management and higher-yielding varieties" at the top of his list of actions that would close the gap between China and U.S. yields.

Enter the multinationals. China presents an unprecedented opportunity for agribusinesses to sell inputs and other agriculturally related goods and services to an extremely large market that, unlike the U.S., is not saturated. Supplying the inputs and mechanization that could raise the average corn yield from, say, 70 to 130 bushels per acre in a country the size of China would be a market growth opportunity extraordinaire. And the proverbial stars may be lining up so agribusinesses can convert that opportunity to a reality.

The potential is there, so let's look at some recent reports to see what is happening in China's agricultural chemical sector.

- FarmChina.com reports: "Attracted by the huge potentials of China's market, many foreign chemical companies have come to China, including Dupont, Mitsubishi, Monsanto, Novartis, Reilly Chemical and AstraZeneca Co. Taking the advantage of China's lower labor cost and less restriction on the factory site, these companies quickly entered China's market."
- China Food and Agricultural Service (cnfas.com) recently posted the following: "Cargill has reportedly signed a joint venture agreement with the Yunnan Phosphate Fertilizer Factory, a deal valued at $30 million that will be used to upgrade existing manufacturing capacity. Eventual DAP [diammonium phosphate] production from the new venture is expected to reach 600,000 metric tonnes. Cargill also operates several other projects in China including feed mills and a domestic agricultural commodity distribution operation in partnership with Chinese and Japanese companies."
- FarmChina.com reports, "The chemical industrial zone in Caojing off the Northern Hangzhou Bay, which is presently under construction, will provide massive potential for overseas investors once it is completed. The world's chemical giants including Bayer and BASF have decided to set up large chemical enterprises and heat and power plants in Caojing, [Shanghai's Mayor] Xu [Kuangdi] said."

Joint venture investments in China by multinational agrochemical businesses will help local partners overcome some of their input, production and distribution challenges. Multinationals offer the organizational structures and well-tested knowledge delivery systems needed to educate farmers about the benefits of the products they have for sale as well as the effective and safe use of these products. Following are four areas in which the experience, expertise and knowledge systems of multinational firms will multiply the impact of agrochemicals in Chinese agriculture.

- INVESTMENT IN RESEARCH – While multinational firms have traditionally set research budgets at 10% of sales, Chinese firms have made meager investments in basic research. As a result Chinese firms can produce only 200 of the 500 most commonly used agricultural chemicals. Multinational investment will spur research in adapting existing and new agrochemicals to the widely varied needs of agricultural production in China.
- SCALE OF PRODUCTION – At present China has more than 2000 companies producing, processing and packaging agricultural chemicals. Each company produces a relatively small amount of product as a result they do achieve the economies of scale enjoyed by multinational firms.
- QUALITY CONTROL - The small size of Chinese firms often results in an effective loss of quality control and consequently many products are sold under the wrong name. Because of manufacturing problems in small Chinese plants that use outdated equipment, product quality often cannot be guaranteed.
- TRAINING AND SUPPORT – Through advertising, product support and work with local distributors and applicators, multinational agricultural chemical firms are able to ensure that the products they manufacture are used effectively. Without company support and oversight, farmers often apply chemicals at double the recommended rate. FarmChina.com says that it has been estimated that as many as 7,000-10,000

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farmers are poisoned to death by agricultural chemicals each year.

Many of the challenges facing China to increase its corn and soybean yields are the types of problems that the multinational agrochemical firms are well equipped to solve. And most of these problems are not on the cutting edge of science. They just require well-tested management techniques.

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