PolicyPennings by Dr. Daryll E. Ray

China remembers famine: Food security is a high priority

One of the things we say over and over in this column is "food is different." Those words came to mind as we read a story in the May 11, 2005 issue of China Daily about the development of a "super wheat."

The story was about a Chinese agronomist, Liu Binghua, who has developed a variety of wheat that should earn the designation "super wheat" when harvest is completed in June.

The article notes that, if successful, the research led by Liu could bring about a doubling of China's average wheat yield. In 2004, the average wheat yield in China was 62.17 bushels per acre, well above the US average of 43.14. In test plots last year, the highest wheat yield was 159 bushel per acre, a yield that Kansas and North Dakota wheat farmers can only dream of.

In addition to yield, Chinese researchers are working on adapting this high yielding wheat variety to the varied weather and soil conditions in China, including the highaltitude area of the Tibet Autonomous Region. Breeding in drought tolerance is also a breeding priority.

While the agronomic advances are interesting, what caught our eye was the context into which the China Daily journalist placed the story. The focus of the story was not that Chinese agronomists are conducting world-class, cutting-edge research on wheat production. Rather, the focus of the story was made clear by the China Daily headline: "Wheat harvest to enhance food security."

The article indicates that China Agricultural University projects that the population of China in 2030 will be 1.6 billion, up from today's 1.3 billion. The projected demand for grain to feed the increased population is between 9.5 billion bushels (60 lb. bu. equivalent) and 10.7 billion bushel equivalent. Currently China's grain production stands at 6.7 billion bushel equivalent.

The article makes it clear that the preferred way of reaching that goal is to increase Chinese domestic production: "As the nation grows increasingly alarmed by the international catchwords 'food security,' it has never ceased its efforts in grinding out super-yield crops to feed its growing population.'

In 1963, when Liu was in senior middle school, his experience of hunger set him on the path that he has followed throughout his life. "'Unconsciously, I have been on a mission to find solutions to yield more crops for the nation ever since,' said Liu, adding that starvation happened even in Henan, a staple province for China's wheat planting."

The average wheat yield in China in 1963 was 11.55 bu./ac. compared the 25.18 in the US during that same year. In the intervening years, US wheat yields have increased by 72% while Chinese yields have increased by 438%, a testimony to the importance China places on increasing its ability to feed its population. As the article says: "China feeds 22% of the world's population on only 7% of the world's arable land. That means grain security must be placed at the top of the government's agenda."

Many countries view food security in the same way that we view military security in the US. Food is different. If the US, which has never experienced a major famine, seeks to maintain its domestic base of food production so it does not become dependent on imports, how much more might that be true for a country like China, which has experienced famine within the lifetime of many of its residents?

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