

Follow the Grain

March 6 ♦ 15, 2008

Summary of Montana Trade Mission to China

♦Better Wheat♦ (03/06/2008)

Taking off from Gallatin Field were 29 ♦Follow the Grain♦ participants. This trade mission was comprised of MSU students, MSU faculty members, Montana wheat producers and representatives from Montana agricultural organizations.

Upon landing in Portland, OR, the team was bussed to the Wheat Marketing Center. The center's executive director, David Shelton, greeted the trade team. Shelton gave an overview of the six U.S wheat classes: Hard Red Winter, Hard Red Spring, Soft Red Winter, Soft White, Hard White and Durum. Shelton highlighted Montana's position as a global leader in high protein Hard Red Winter and Hard Red Spring wheat production.

Following lunch, we split into two groups to learn about wheat quality analysis and the end uses of wheat in China. The overview of wheat quality analysis was provided by laboratory technologist, Annette Doan. Doan demonstrated tests such as falling numbers, percent ash and alveograph. All of these tests quantify the baking characteristics of a wheat sample for end users. Meanwhile, the other group received a short course in noodle making from technical manager and Asian foods specialist Gary How. Viewing noodle making as an interactive experience, How stepped back and encouraged the group to operate the noodle making equipment themselves. After cutting the noodles to length, the group was served noodles and other wheat products common to China such as steam bread.

Connecting this hands-on education to the price of wheat was John Ohs of the U.S. Wheat Associates Portland, OR office. Ohs pointed out that U.S. Wheat Associates operate on a \$14 million annual budget, with the single purpose of developing export markets for U.S. wheat. It was fitting for Ohs to be delivering his presentation in Portland as 35-40% of all U.S. wheat is exported from Portland. While U.S. wheat is exported to over 84 countries worldwide, the primary importers of Montanan wheat are Asian nations including Japan, Taiwan, South Korea, Indonesia and Thailand. Although Montana is famous for its Hard Red Winter Wheat and Hard Red Spring Wheat, when looking to the future, Ohs believes that Hard White Wheat has a greater potential than any other wheat class to increase U.S. wheat exports.

To gain an understanding of how wheat shipments are prepared for export, we traveled north to Vancouver, WA. Vancouver is home to United Harvest, a joint venture between CHS and Mitsui Ltd. This operation receives wheat via rail and barge. Upon receiving, the wheat is sorted according to class and protein content. Blending of wheat is conducted in a surge bin prior to export. The handling of wheat and management of wheat inventories is facilitated by operators in a computerized control room, while the actual loading of ships is conducted by longshore labor.

♦Ocean Crossing♦ (03/07/2008 and 03/08/2008)

Bags packed and the bus boarded. Departing from the hotel at five a.m., we were headed for the Portland International Airport. Following check in, we got on our flight bound for Shanghai, China. After flying for twelve hours, our plane descended upon the Shanghai International Airport. Peering out the windows, it was

apparent that the local people had adapted to the scarcity of arable land. Beside the runway were greenhouses and vegetable plots where local farmers were making a living. This agrarian scene contrasted with the modern airport where our tour director Ken, was holding a sign welcoming our group to China. After passing through customs, we boarded the tour bus. Our bus driver was named Laysifu, which in Chinese means ⚡thunder master.⚡ This name was fitting as Laysifu dodged through traffic with the skill of a fighter pilot while taking us to the Shanghai Galaxy Hotel.

⚡Bigger Picture⚡ (03/09/2008)

Eating breakfast consisting of corn-on-the-cob and noodles was a new experience. Following breakfast, Chenci Chen took us to the waterfront shipping area. At the waterfront, we were exposed to a new form of direct selling as street salesman followed us for blocks on end in hopes of making a sale. After making our way to the waterfront, we returned to the hotel to meet with an economic officer from the United States⚡s Shanghai Consulate Office and the associate director of the USDA⚡s Shanghai agriculture trade office. Presenting first, was the economic officer with a summary of China⚡s economic progress. While progress in China has been rapid in recent years, he noted that economic growth has primarily been isolated to coastal regions of China. Amidst this progress has been severe environmental degradation. While China has stringent environmental laws, they are rarely enforced. This occurs because promotion for communist leaders depends on the G.D.P. growth within their city or region, thus environmental laws are ignored to accelerate G.D.P. growth. While environmental degradation may be a large problem facing businesses in the future, today the number one problem facing businesses is human resources. Despite a population of 1.3 billion people, Chinese businesses are facing a shortage of labor. This situation is a direct result of China⚡s one child policy which has reduced the number of working age people in China.

As the number of working age people in China continues to decline, the opportunity to export U.S. agricultural products to China remains bright. The associate director of the USDA⚡s Shanghai agriculture trade office emphasizes the \$8 billion worth of U.S. agricultural products exported to China annually. This export volume makes China the third largest customer of U.S. agricultural products. Leading these exports are soybeans, which account for \$3 billion in agricultural exports to China each year. Cotton is the second largest agricultural product exported to China followed by hides/skins and hardwoods. While these figures appear optimistic, obtaining market access for U.S. agricultural products made headlines in U.S. newspapers last spring when Chinese agricultural inspectors began rejecting U.S. agricultural products. This was highlighted by the public destruction of KFC french-fries.

Though potatoes are grown in Montana, of larger concern for our group was China⚡s ban on U.S. beef imports. China plans to maintain this ban until the U.S. removes its ban on Chinese chicken imports. While health concerns keep Chinese chicken out of the U.S. marketplace, the gourmet characteristics of U.S. beef has found it being traded on China⚡s black market.

While the future of U.S. beef exports to China remains precarious, U.S. soybean exports tell a different story. The next presenter plays a key role in increasing market share of U.S. grains and oilseeds in China. The head of CHS⚡ China office said that CHS just opened this office a year ago and primarily imports soybeans and soybean oil from the U.S. To expand its presence in the Chinese soybean market, CHS aims to purchase or become partners in a soybean crush facility in China. CHS isn⚡t the only U.S. company interested in Chinese soybean crush facilities as 60-70% of China⚡s total soybean crush capacity is owned by U.S. companies. It is unlikely that the percent of China⚡s total soybean crush capacity owned by U.S. companies will increase in the near future as the Chinese government wants no expansion in the percentage of soybean crush capacity owned by U.S. companies. This policy has been adopted by the Chinese government as it is difficult for the government to control the price of oilseeds and oilseed products when the majority of oilseeds are crushed by international companies. Following this overview of CHS⚡ current and future presence in China, the head of CHS⚡ China office took our group to a local market. This market catered to the local working class and carried basic food items ranging from noodles to fresh oxtail.

◆Modern Milling◆ (03/10/2008)

On the cutting edge of global wheat milling technology is Shanghai Liangyou Group Co. This provincial owned company started building a state of the art facility which includes wheat milling, rice milling and oilseed crushing operations in 2005. This \$300 million facility is expected to be completed by September of this year. The facility will have a daily capacity of 600 tons of oilseed crush and 800 tons of wheat and rice milling. Not only does this facility have milling and oilseed crush capabilities, but also long term storage for grains and oilseeds. These long term storage facilities are part of strategic government grain reserves and can store grain for at least six years if necessary.

After touring the facilities which are currently under construction, we had lunch at a nearby waterfront on the ◆Dragon Boat.◆ Following lunch, we boarded the bus for Hang Zhou where we spent the rest of the afternoon bartering with local merchants for 100% silk garments at one of China's major silk markets. Completing the day was an authentic Chinese meal arranged by a local government official at the finest restaurant in Hang Zhou.

◆Tea Please◆ (03/11/2008)

The day started with a visit to one of the Zhejiang Province's government office buildings where we met with three provincial government officials. The three government officials highlighted the agricultural strengths of their province. For example, they explained that Zhejiang province produces 60% of the green tea in China, is the largest producer of beef in China and exports \$1 billion in silk products (46% of China's total silk exports) annually. The three gentlemen also made particular reference to crop rotations in their province, stating that most farmers double crop, growing rice as a summer crop and rapeseed or barley as a winter crop. Though this system would seem to foster high grain production, the province's historical shortage of grain products has caused the provincial government to subsidize grain production. While subsidies increase income for some farmers, income for the average farmer in Zhejiang province is still only \$1,100 per year compared to the province's average per capita income of \$2,700 per year. This low farmer income isn't surprising as the average farm size in the province is a third of a hectare (0.82 acres). As the average per capita income in the province continues to rise, people have started to consume less rice and more animal-based products such as milk.

In order to showcase the production of high quality agricultural products within their province, one of the provincial government officials took us to the West Lake Tea Company for a tour. The company's president, Qi Guowei gave us a tour of their demonstration farm. Qi Guowei described the delicate process of high quality tea production. First, workers must hand pick slender fresh tea leaves. It takes one worker eight hours to harvest four pounds of leaves. These leaves are placed in heated bowls and shaken by hand until dried to perfection. Once properly dried, the tea is graded into one of seven grades depending on quality. The tea is then further classified based on the season in which it was picked. The three tea seasons consist of spring, summer and fall, with the highest quality tea being produced in the spring. While tea farming has occurred in the province for over 1,800 years, silk production has an equally rich heritage in the area. To better understand this heritage, we toured a silk museum before boarding the overnight train to Beijing.

◆Tourists View◆ (03/12/2008)

As daylight broke, the train came to a screeching halt in Beijing. After breakfast, we boarded a bus for Tiananmen Square. The security was ever apparent as we stepped off the bus. Groups of six to ten soldiers marched up and down Tiananmen Square. On the edge of Tiananmen Square sat the Chinese parliament building where the Chinese parliament was in session. Walking across Tiananmen Square we approached a gated archway leading into the Forbidden City. Above the arch was a portrait of Mao Zedong who in 1949 became the first leader of the People's Republic of China. After passing under the gated archway, we had to pass through two more gates before entering the Forbidden City. Like a maze, there were walls, gates, and yellow roofs as far as the eye could see. Built between 1406 and 1420 by Yongle, the third emperor of

the Ming Dynasty, the Forbidden City served as the palace for 24 emperors of the Ming and Qing dynasty. For nearly 500 years the Forbidden City was the epicenter of Chinese bureaucracy until anti-imperial revolution formed the Republic of China in 1912. In 1925 the Forbidden City opened to the public as the palace museum.

Scaffolding throughout the city was a sign of the city's sixteen year restoration project which started in 2005.

◆Diplomatic Affairs◆ (03/13/2008)

Stepping off the bus at the U.S. embassy we were greeted by Horhay, a bio-fuels specialist with the USDA's Foreign Agriculture Service. Horhay led us through security and into the embassy, which is currently the United States's busiest embassy in the world. Inside, we met with a panel of USDA and embassy officials.

The panel emphasized the strength of U.S. exports to China. China is the third largest customer of U.S. agricultural exports. They primarily import bulk commodities such as soybeans, cotton, and animal hides from the United States. China must import bulk commodities to feed its 1.3 billion people because only 14% of its land mass is cultivatable.

Economist Andy Shaw noted that the 11% annual growth in China's economy over the past five years has increased the country's demand for animal based proteins. The combination of strong demand and disease outbreaks on many Chinese hog operations has allowed Exports of U.S. pork to China to reach record levels.

The panel pointed out that China's strong economic growth is accompanied by environmental challenges. Higher per capita incomes have enabled the number of cars in Beijing to increase by 1,000 per day. The lack of emission regulations has caused poor air quality in China's population centers.

While the U.S. closely monitors environmental degradation across China, intellectual property rights are the most controversial issue in trade relations between the United States and China. For example, genetically modified varieties of cotton resurrected China's cotton industry which had been plagued by boll weevils. Unfortunately, Monsanto, the U.S. company believed to have developed the genetically modified cotton variety used by Chinese farmers has been unable to collect any royalties from their biotechnology being used by Chinese farmers.

The most rapid economic progress in China has occurred in large coastal cities. Moving economic progress westward is being facilitated by government programs investing in the interior and second tier cities. This economic activity has caused a large urban migration as people leave the countryside to earn 2 to 2.5 times more money at jobs in the cities than achievable in the countryside.

To gain a deeper understanding of Chinese Agricultural Production, we spent the afternoon at the China Agriculture University. Dr. Loping Wu, a professor in the College of Economics and Management, highlighted how government reforms and international trade are reshaping the Chinese countryside. Although China's agricultural population is estimated to be between 750 and 900 million people, there has been a rapid increase in urban migration in recent years. People move to the cities in hopes of a higher standard of living as the average size of a Chinese farm is only .6 hectares or 1.5 acres. Across China, three major agricultural sectors are observed. Based on product value, crops are the largest sector, followed by livestock and aquaculture / seafood.

The crop sector of the Chinese agricultural industry has undergone large changes since 2001. Chinese agricultural policy was liberalized in 2001, allowing farmers to plant what they wanted, where they wanted. Acreage began to shift away from low value staple crops such as wheat and rice towards higher value crops

such as fruits and vegetables. By 2003, Chinese grain production had declined dramatically. This decline along with higher per capita incomes, caused China to gravitate from being a net exporter to being a net importer of agricultural products in 2003. Dr. Wu estimates that China would have to increase crop acreage 13% to be self sufficient in soybeans, grains, and cotton. While China continues to rely on grain imports, the Chinese government recently began subsidizing grain production enabling it's acreage to compete against higher value crops. Chinese agriculture subsidies are classified in two broad categories, direct subsidies and infrastructure subsidies. Direct subsidies subsidize high quality crop seeds, machinery, inputs like fuel or take the form of unstipulated cash transfers. Infrastructure subsidies focus on irrigation systems, rural electrification, and rural transportation.

These subsidies reflect the priorities of the Chinese government. The government has prioritized agricultural and rural development with the goal of increasing agriculture output and increasing the standard of living of Chinese farmers. To help achieve these goals, the government has implemented stricter controls on the conversion of ground from agricultural to commercial or residential uses.

At the heart of China's goal to increase agricultural output is science. We saw this first hand while visiting with wheat breeders at the Chinese Agricultural University's College of Agronomy and Biotechnology. Although the most popular wheat varieties in China are those of high gluten strength used in steam bread and noodles, the wheat breeders noted low gluten strength as the greatest quality challenge facing Chinese wheat.

The scientists were optimistic about the future of Chinese wheat varieties. While driving past Beijing's 91,000 seat Olympic Stadium on our way back to the hotel it was obvious that the country as a whole, not just wheat breeders are looking toward the future and welcome the world to take a look.

◆Great Wall◆ (03/14/2008)

Marking the trip's final event, the group scaled a section of the Great Wall of China.

◆Homeward Bound◆ (03/15/2008)

Following a short bus ride, the group boarded a plane bound for San Francisco, CA. As the plane ascended above the runway, people peered out the windows across the People's Republic of China. We were reminded of the opportunities for American Agricultural Exports to help feed one fifth of the world's population which calls China home.