



THE CHINA CHALLENGE

This is Part Three of a four-day series that explores the apple industry in China and how it affects apple growers in Washington. Inside today:

- China's apple industry has been making remarkable progress/ 6A
- China's apple industry faces challenges as it moves toward the future/ 7A
- Some facts about China's exports/ 7A
- Information about China's fresh apple markets/ 8A



Workers stack plastic containers that will be used to store apples in the new controlled atmosphere storage unit outside of Yantai. There are more than 80 controlled atmosphere buildings in the Shandong Province as of 2003. This building is owned by Penglai Orchard and, including the packing line, cost about \$3.5 million in U.S. dollars.

Yakima soldier dies in combat

Army Staff Sgt. Kyle Eggers is son-in-law of Yakima councilwoman Susan Whitman

Eggers

Peering into the future

YANTAI, China — If there's a face on the future of China's apple industry, it just might be someone like Zhang Dayong.

As he barrels down one of Shandong Province's modern highways in a Chinese-made SUV, his cell phone rings every few minutes. In quick succession come calls from Thailand, Anaheim, Calif., and Tieton, Wash.

Besides Chinese, he speaks English, French and enough Russian to get by. A decade ago, he started his career as a truck driver. When he acquired his first cold-storage building, he'd sleep there to ensure temperatures were maintained properly for the apples.

Today, he owns three packing operations and several cold-storage facilities. He brokers deals

shipping apples to Thailand, Indonesia, Malaysia, France and India, and importing apples from the United States.

Last year, he shipped 20 containers holding more than a thousand boxes each to Holland. This year, he'd like to see that number rise to at least 200 containers.

Under gentle probing, he admits he just sold a home in Paris, but has another in Normandy.

In the same breath, he insists he's not a success, at least not yet. There is so much more to do, he explains.

He's got time. He's 31 years old.

Economic reforms of the early 1980s have helped to spawn huge numbers of people like Zhang Dayong. Although born the year after President Richard Nixon visited China in 1972, Zhang's



Zhang Dayong

childhood years echoed with the lingering effects of Mao Zedong's more disastrous policies. He recalls his family having nothing to eat but frozen pears, which they soaked in warm water until soft enough to eat.

Now his generation is embarked on an economic journey of historic proportions. In little more than a generation, China has marched from an economic backwater to one of the world's most important economies.

Zhang is part of a generation that's revolutionizing his nation's apple industry. In the first 10 months of this year, just one re-

gion, Yantai, increased fruit exports by 40 percent over the same period as last year. This year, China's apple exports for the first time surpassed those of the United States. By 2008, China wants to increase apple exports to 1.4 million tons, which would account for nearly one-fourth of the apples traded on the global market.

The Chinese central and local governments are offering tax breaks, land deals and working with farmers to improve quality.

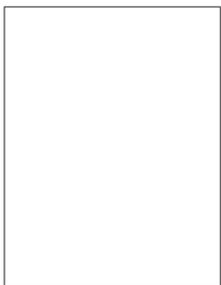
Zhang travels extensively and could probably live anywhere he chooses, including France, his wife's homeland. But it is China where he will remain.

It is, he quietly explains, his country.

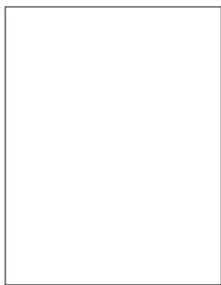
Wednesday: What Does It All Mean?

Stories by CRAIG TROIANELLO, Yakima Herald-Republic • Photos by DON SEABROOK, Wenatchee World

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X sections, xx pages

Countdown



18 days until Christmas

Name: Chloe J. Grigsby
Age: 7
Town: Cowiche
Parents: Jay and Tiffany Grigsby
How do you keep a snowman from melting? Put it in front of the air conditioner or put an umbrella with it so it does not melt.



It will still be xxxxx
See Page 2A.

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Below Chinese characters that say "China Shandong Qixia Apple Art Festival and Contract Ceremony" and a replica of the Great Wall of China made with Fuji apples, more than 100 apple buyers line up to sign contracts. The town of Qixia calls itself the "Apple Capital."

Mechanizing, modernizing

China's apple industry moving forward by leaps and bounds

QIXIA, China — Scores of apple brokers and packers mill about in a cavernous exhibition hall where a hundred-foot-long silhouette of the Great Wall of China has been created out of red and yellow apples.

There are booths displaying fresh apples, materials for packing apples and products made from apples.

Earlier in the day there was traditional singing and dancing. But now comes the main event. More than a hundred apple buyers line up for a contract-signing ceremony. Young women in traditional red gowns pin flowers on the buyers who ascend the stage in waves to sign the contracts. Chinese reporters dutifully take notes, and it's all filmed by several local TV crews.

Later, one of the buyers concedes many of the contracts had already been signed. The event was largely for show.

Still, the ceremony and the attention it generates embodies the apple industry's importance to the area.

An estimated 400,000 families grow apples in the greater Yantai region — an area only about a third larger than Yakima County.

Yantai's apples and other fruits are exported to 40 different countries and regions, including Russia, Germany, Malaysia, and Singapore where advertising campaigns have enjoyed a tenfold increase since 2000.

Yantai is not alone in its efforts. China's overall apple exports rose by 20 percent last year. And as the nation moves toward becoming the world's largest apple exporter, there's little reason to think the momentum will slow.

Apples serve several of China's major goals.

Exports bring cash into the country. Apples also generate more money for farmers than most other crops. That's important to a government worried about an ever-widening income gap between farmers and city dwellers.

Urban residents earn more than three times that of farmers. When other factors are considered, such as availability of medical care, unem-



Wang Kui Liang

ployment insurance and social programs, the ratio rises to more than 6 to 1. It's one of the world's widest urban-rural income gaps and it's clearly unhealthy for a nation where nearly two-thirds of the people live on farms.

To help alleviate the disparity, the central government has called for reducing, and in some cases eliminating, taxes on farmers.

At the same time, an unshackled free-market system has spawned a new generation of apple packers, brokers and exporters who are reaping its benefits while aggressively expanding and modernizing the industry.

In turn, their efforts are aided by local governments anxious to see further economic development.

The apple boom came earlier to Yantai, but what's happening here is also taking place in other parts of the country.



Huang Xin Jian

The headquarters of the Yantai Agricultural Bureau has not shared in the economic boom of this clean and modern city.

Its hallways are cold and dim, the offices stark. Its faded blue conference room is brightened only by red chairs and the Chinese flag in the corner.

At the conference table, bureau agronomist Wang Kui Liang explains that apples play an important role in the bureau's efforts to boost farmers' earnings. The bureau regularly dispatches advisers to work with farmers to improve quality. Some farmers are being encouraged to shift from Fujis to Japanese Tenjnu, a variety with a higher acid content that lends itself better to juicing.

And a limited amount of organic farming is under way.

Across China, the Ministry of Agri-

culture is working to improve grower competitiveness and upgrade the looks and taste of apples.

The goal, explains Wang, is a greater share of the world market.

"Growers appear to be taking these encouragements to heart," according to a recently released report by the Foreign Agricultural Service of the U.S. Department of Agriculture, which monitors China's apple industry.

Apple quality is improving and new markets are opening, the report notes.

On the gentle rolling plains south of Yantai, construction workers are putting the final touches on the Penglai Gold Garden Industrial and Trade Co.'s new packing plant and storage units.

The packing-line equipment is Chinese-made. But it employs Italian technology for its controlled atmosphere units — a type of storage that uses nitrogen to keep apples fresher

longer than conventional cold storage.

A decade ago, Yantai had few ways to store apples. Today, it has an estimated 280 cold-storage buildings and at least 60 of the more advanced controlled-atmosphere facilities, Wang said. More are on the way. The goal is to get a third of Yantai's apple crop into storage, up from the current 20 percent, he said.

Most fresh apples are still packed by hand. But in Yantai, there are at least 18 mechanized packing facilities, including at least one with the technology to sort apples by color.

Consistent quality, including color, remains a major challenge for the industry as a whole, said Huang Xin Jian, a Yantai-based producer and exporter who installed one of the region's first color-distinguishing packing lines last year. The machine was manufactured in China at about one-third the cost of buying it overseas, he said.

That's not surprising, according to some American apple officials.

"They have homegrown experts. It's an urban legend that it's all being done by outsiders," said Barclay Crane, president of the Washington State Horticultural Association, which represents shippers and growers.

Huang's two packing lines are among the more advanced in China, with the ability to wash, wax, weigh and separate apples based on color.

Dayong Zhang's packing operations are smaller. Apples aren't washed. Instead, workers use air guns to clean debris from the fruit's stem and base. That's still a step above most facilities, which simply pack the apple after sorting for size and color.

Dayong's packing-line workers are paid the equivalent of \$3 a day, regardless of whether they work eight or 12 hours.

While many Chinese discourage the idea of foreign-owned or -operated orchards, they said they'd welcome more joint ventures involving packing and processing.

One of the biggest packing facilities in Shandong Province is a Singapore-owned plant employing 500 workers. At least one major juice plant includes Japanese ownership.

Joint ventures with American apple companies are taking place, but so far at a fairly limited rate. China's relatively new and untested business laws, coupled with American skepticism about how fairly their businesses would be treated in local Chinese



In Zhang Dayong's packing plant in Taocun, Guo De Rong, left, and Wang Cai Yun place apples onto a small conveyor belt where they are sorted by their weight into the bins in the foreground at right. This is the only automated machinery in the plant.

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PROBLEMS TO BE OVERCOME

Storage, transport, quality control

YANTAI, China — There's little doubt that China's apple industry has made spectacular, even historic, progress over the past few years.

But three major hurdles are keeping the industry from reaching its full potential: storage, transportation and quality control.

If Shandong Province is any indication, the first two problems can be overcome given time and money. Quality control could prove more difficult.

Shaanxi Province is best known for the spectacular 2,200-year-old terra cotta warriors and horses uncovered at the tomb of the first emperor of China.

Located a hard day's drive northwest from the tomb are orchards growing what many say are China's best apples.

With its arid hills, cool nights and hot days, Shaanxi is more similar to Central Washington than other parts of China. Many call it the future of China's apple industry.

The province already produces twice as many apples as Washington state. But unlike Washington, roads and storage are major problems for Shaanxi.

In Washington, apples are stored in vast refrigerated warehouses that are sometimes filled with nitrogen, which further lengthens an apple's shelf life. When it's time to go to the market, apples are loaded aboard refrigerated trucks, which can travel more than a thousand miles a day on smooth interstate highways.

In much of rural Shaanxi Province, roads are narrow and bumpy. Cargo can be jostled and bruised, and most trucks are not refrigerated. Storage prior to shipping is spotty. Cold storage isn't extensive and what's there is subject to occasional power failures.

Modern storage facilities are being constructed. However, it will take Shaanxi 10 years to catch up with the most advanced regions, estimates Huang Xin Jian, a producer and exporter with operations in both provinces.

Shaanxi isn't alone. Most of China's seven other major apple-growing provinces, including some that reportedly still use caves to store apples, face similar hurdles.

Officials in many of those places hope to emulate northern Shandong Province, which has made the most advances in overcoming the problems.

As a long-established international port city in northern Shandong Province, Yantai's business community was better positioned to take advantage of the early reforms. Today, its apple industry is acknowledged to be well ahead of the rest of the nation. In the last decade, a network of modern highways were built linking many rural areas with cities and ports.

And apple industry officials have been building cold storage and the more advanced controlled-atmosphere storage units at a blistering pace over the last decade.

Shandong's progress is due, in part, to easy access to international shipping. It's also helped by businesses more at ease working with foreigners than those in interior provinces, Huang said.

That comfort level put trading and joint ventures on a faster track than in the interior, he said.

But that's changing fast. Apple exports from Shaanxi, for example, are already on supermarket shelves in Canada.

There lies China's third challenge — quality control.

Two years ago, the first commercial shipment of Chinese Fujis arrived on North American shores. What's happened since has resulted in trade suspensions and has reinforced American concerns about the safety of Chinese apples.

The story begins in December 2002, when 80 pallets of Fujis arrived at the docks of Vancouver, British Columbia, as part of a two-year test program.

Almost immediately, American and Canadian growers expressed alarm that the apples might carry pests or diseases. While Chinese apples are not allowed in the United States, growers fear the pests could easily hitchhike south and infect their orchards.

Growers could also be forgiven



Business partners Gao Peng, left, and Zhang Dayong meet in the office of their empty new packing plant to discuss an ill-fated joint venture with an overseas investor. The two paid for the land and construction of their buildings for cold storage, packing and offices. Then their partner from the Philippines wouldn't pay his part in buying equipment for the buildings. Joint ventures with overseas partners, including Japanese and Americans, are increasing, but difficulties can arise. Zhang worries he may have no legal recourse in the dispute.



A worker strains to move a pallet of Chinese apples in Zhang Dayong's cold storage building in Taocun, Shandong Province. Forklifts are seldom used to move the apples in the tight area. The boxes are stored in levels supported by bamboo and steel.

PROGRESS/

Continued from Page 6A

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Liu Dayong

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To help alleviate the disparity, the central government has called for reducing, and in some cases eliminating, taxes on farmers.

China's 10 largest fresh apple export markets

(Volume in 42-pound boxes)

Russia	5,849,497
Philippines	3,805,028
Indonesia	3,633,407
Vietnam	3,534,499
Thailand	3,303,780
Malaysia	2,619,433
Kazakhstan	1,995,563
Singapore	1,560,364
Netherlands	1,539,792
Hong Kong	1,442,171
Total	29,283,534
Total including others	37,107,694

Figures based on the 2003 apple crop
Source: U.S. Department of Agriculture

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ABOVE: A processing plant worker places labels on Fuji apples as she finishes the top layer of a box bound for export from a packing plant in Taocun, Shandong Province. From there, the apples go to the port at Tsingtao where they will be shipped to their destination. Unlike the machine processes in Washington state, most of the apple packing in China is done by hand.

RIGHT: A farmer picks his way along the bottom of a reservoir used as a road to get to a market. Access to some apple orchards in the country is limited because of very rough roads. Other orchards are near well-paved roads.

BOTTOM: Chinese fruit and vegetable inspector Wang Zhen Dong checks over a Fuji apple with a magnifying loupe in his hand, looking for problems, such as insect eggs. Watching him with interest are processing plant owners Ali En, second from left, and Zhang Dayong, fourth from left.



CHALLENGES/

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China's apple exports

- China exports 3 percent of its crop — or about 37 million boxes.
- United States exports about 13 percent of its crop — or about 27 million boxes.
- Washington state exports about 30 percent of its crop — or about 23 million boxes.

Based on 2002-03 season

prior to shipping is spotty. Cold storage isn't extensive and what's there is subject to occasional power failures.

Modern storage facilities are being constructed. However, it will take Shaanxi 10 years to catch up with the most advanced regions, estimates Huang Xin Jian, a producer and exporter with operations in both provinces.

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