



# UPDATE

## Agricultural and Resource Economics

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### Special Issue: China's Agricultural Boom, with Implications for California

China is reforming its agricultural economy, has joined the WTO, and is laying the foundation for increased competitiveness internationally. China's emergence as a major agricultural trading nation over the next few years will cause a series of changes in China's agricultural markets and in global markets.

Most researchers agree that China has an enormous potential for purchasing U.S. agricultural products, but that breaking into the "China Market" is difficult. Second, China, because of its location and factor endowments, can compete with many of California's most important commodities in world markets. Agribusiness leaders in California see the emergence of China into world food markets as posing perhaps the single most important challenge to California agriculture in the 21st Century.

Giannini Foundation researchers are examining many issues regarding China's emergence as a key competitor to California agriculture. This special issue features some of this work in three papers, each written by leading experts on China and agricultural issues. Scott Rozelle, Jikun Huang and Ruifa Hu suggest that China may soon become the first nation to begin commercial production of genetically modified rice. China's research program on rice biotechnology has developed varieties with resistance to key insects, tolerance to drought and resistance to herbicides. The authors' research suggests that adoption of GM-rice varieties reduces costs for China's

producers and improves producer health, providing strong incentives for China to commercialize GM rice. They investigate the likely impacts of commercialization on world trade in rice, with particular attention paid to California's rice industry.

China is also an increasingly important competitor for California in the global markets for many specialty crops, including strawberries. Colin Carter, James Chalfant and Rachael Goodhue develop comparisons between strawberry production in China and California. China's strawberry production and exports have grown substantially, especially exports into markets that have been important for U.S. strawberries. The authors note that strawberry yields in China are limited currently by disease problems and inefficient production practices. Thus, they conclude that China has the potential to increase production even without increasing acreage.

Fredrich Karhl, David Roland-Holst and David Zilberman take a broad view of agricultural reform in China. They note that, although growth in the agricultural sector has been impressive, rural incomes are still low in many regions of the country and some current practices appear to be unsustainable over the long term. The authors examine the major inputs—labor, land, water and technology—into China's agricultural production and discuss the policy reforms that are needed to improve rural incomes, enhance food security and develop sustainable production practices.

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