

**China – After Accession to WTO:
California's Customer or Cutthroat
Competitor?**

**Scott Rozelle
Professor and Chancellor's Fellow
Department of Agricultural and Resource Economics
UC Davis**

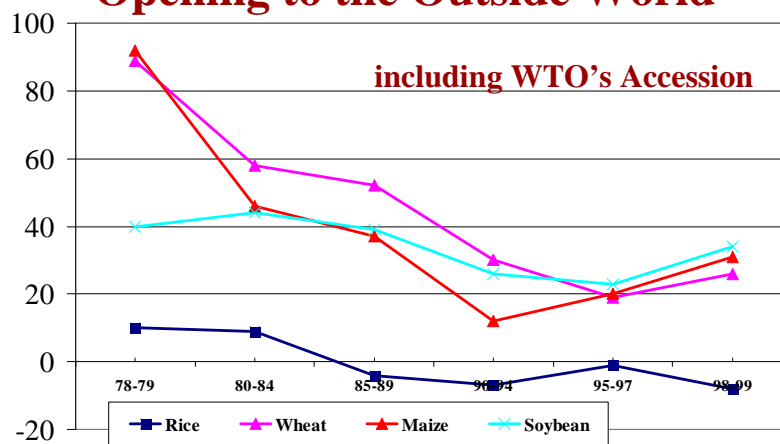
**China's Accession to the WTO
and Impact on Horticulture
Supply, Demand and Trade**

- **Complicated**
- **Little work done in this area (most on major grains and other staple crops)**
- **Horticulture economy is changing as fast as China is ...**

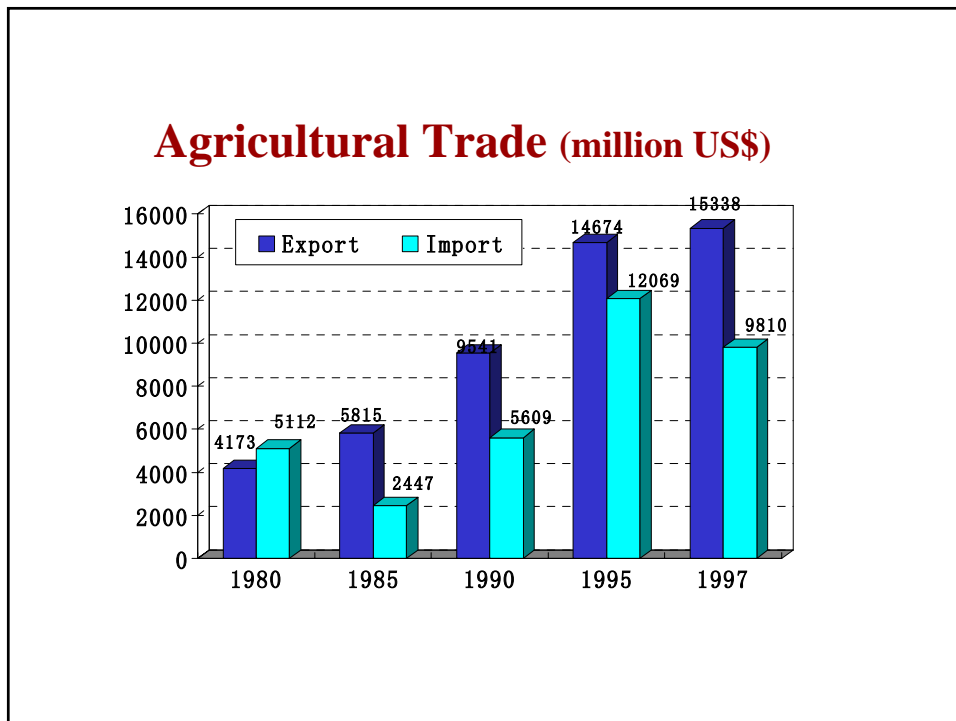
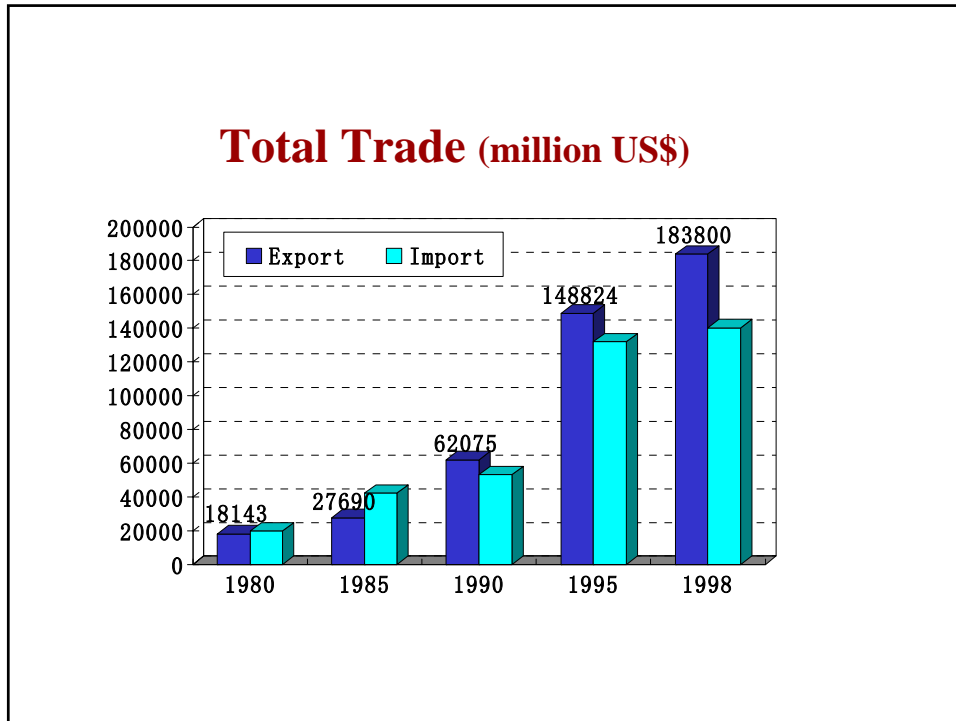
... because: China is in the Midst of Wrenching Changes

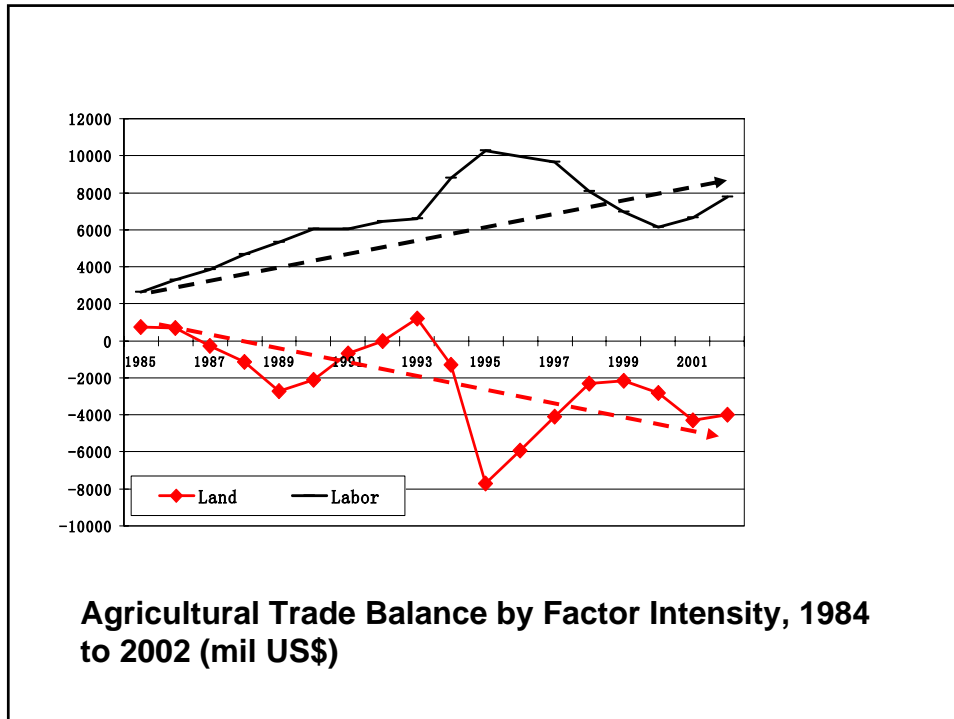
- **Industrializing**
- **Urbanizing**
- **Marketizing**
- **Becoming wealthier**
- **Western-izing**

... and: Falling Barriers and Opening to the Outside World



Huang, 2001



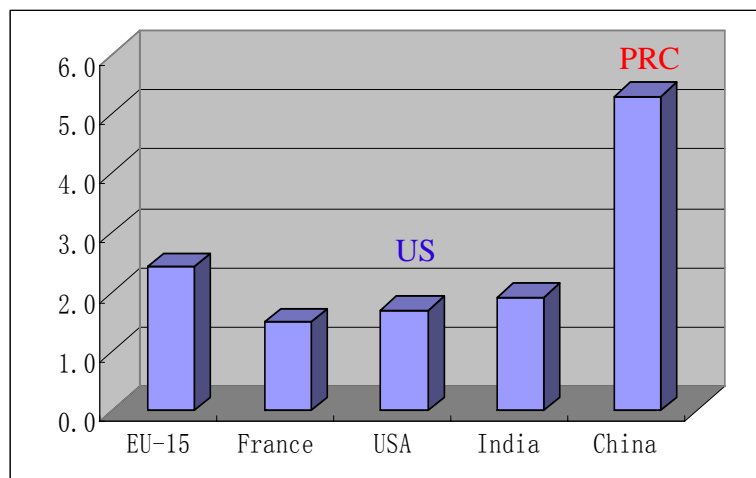


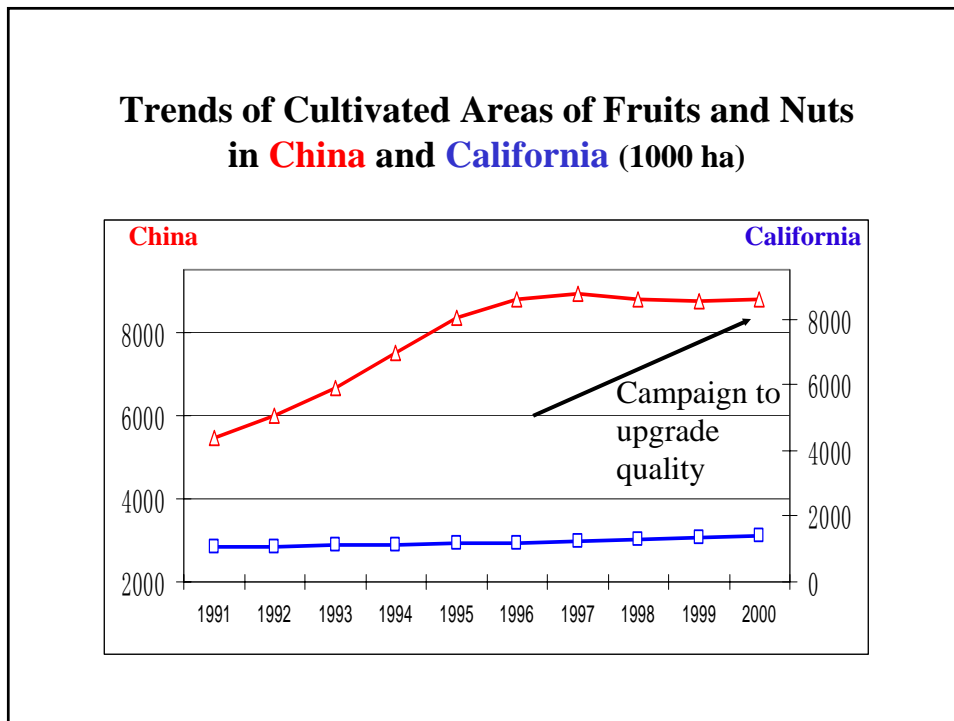
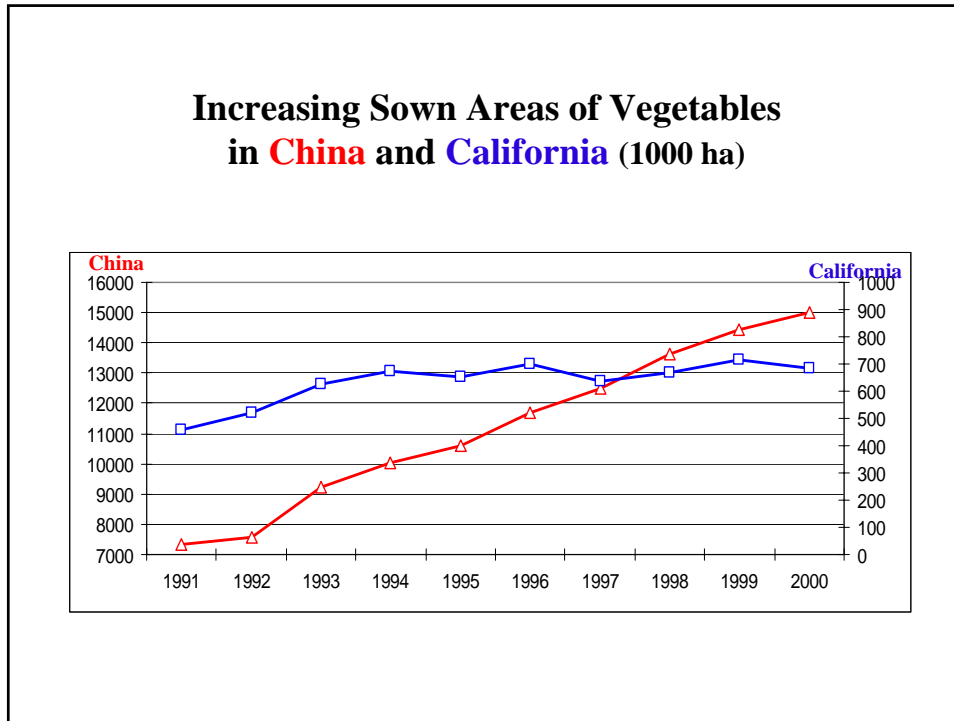
Outline of Presentation

- **Horticulture Facts: Supply, Demand and Trade**
- **Relative Competitiveness: China vs. California**
- **What Can California Do?**

Horticulture Facts: Supply, Demand and Trade

China has Higher Share of Land in Orchards than Most Other Countries

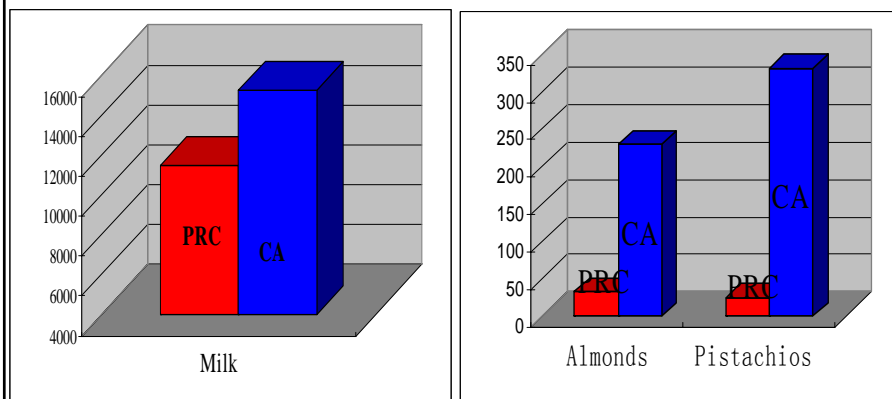




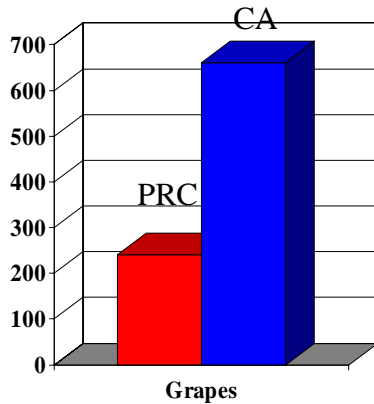
California’s Top 20 Ag. Products vs. China

Products	\$ Million	Rank	Products	\$ Million	Rank
Almonds	3704	1	Lettuce	682	11
Cotton	2836	2	Raisins	537	12
Wine	2247	3	Plums, Dried	471	13
Grapes, Table	1484	4	Strawberries	362	14
Milk and Cream	1267	5	Tomatoes, fresh	347	15
Oranges	951	6	Broccoli	346	16
Tomatoes, processed	898	7	Peaches, etc	310	17

Milk, Almonds and Pistachios – Commodities Dominated by California, 2000 (1000 mt)

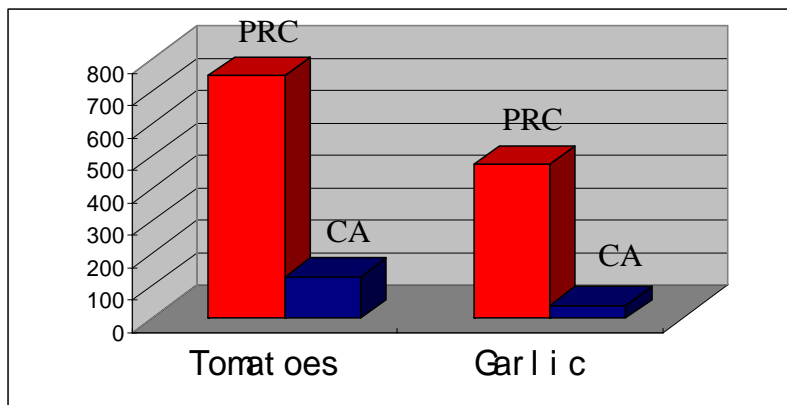


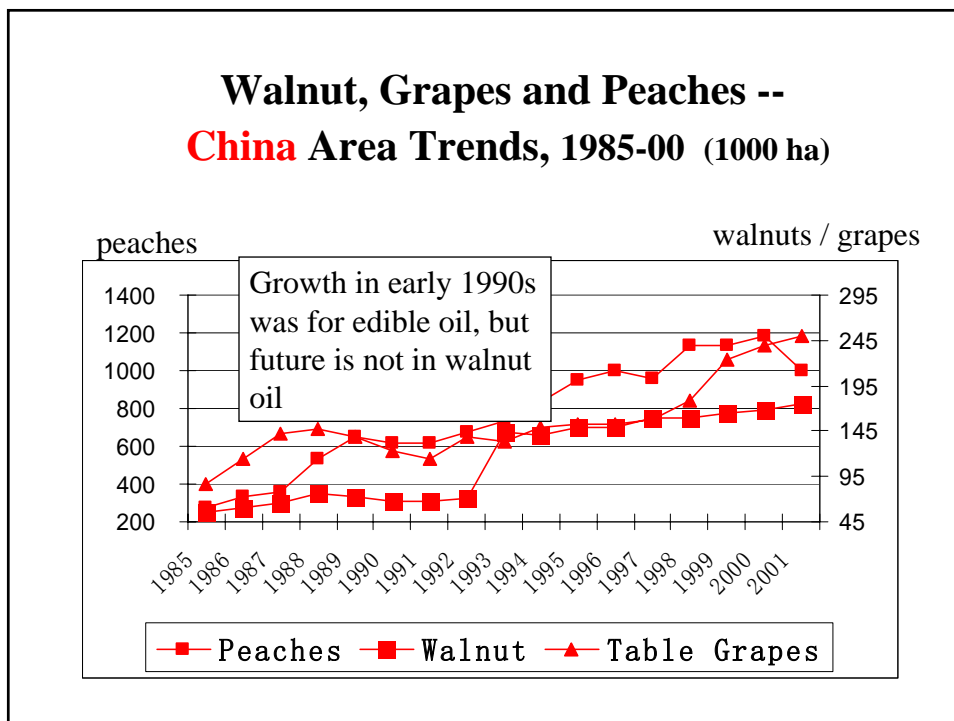
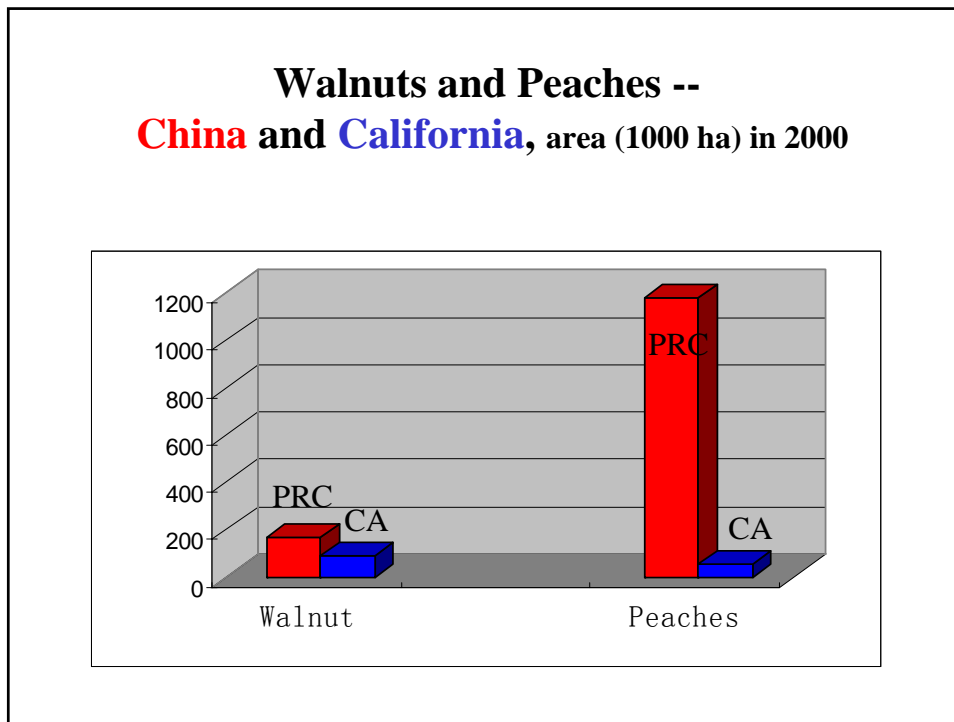
Grapes in **China** and **California**, (in 1000 ha), 2000



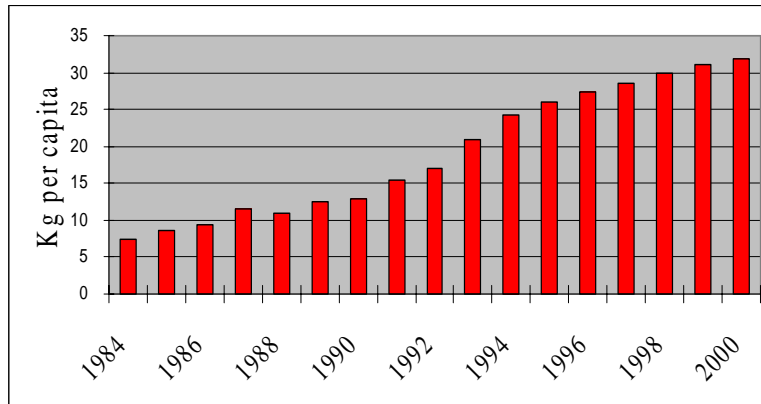
- But, currently Australia is in China on a large, state-backed push on the wine industry

Tomatoes and Garlic – Commodities dominated by **China**, 2000 (1000 ha)

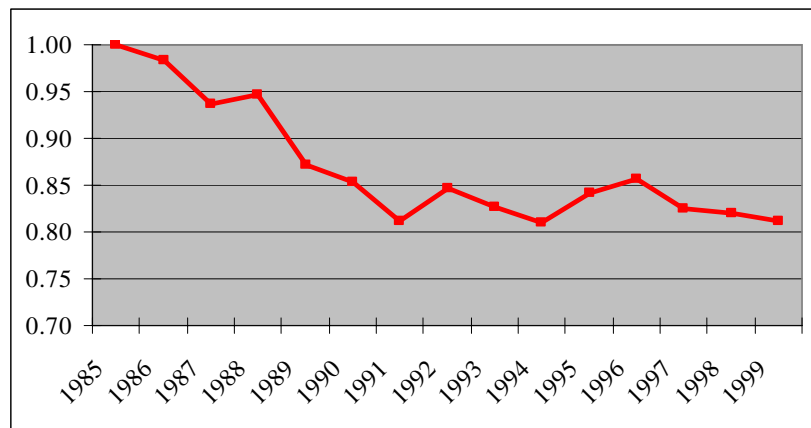


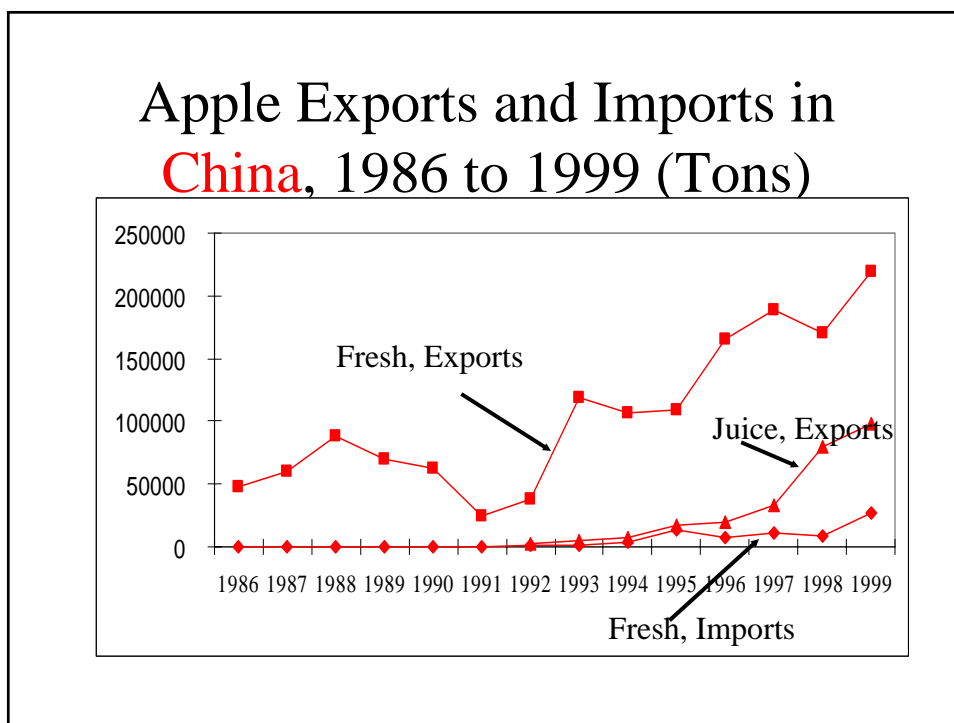
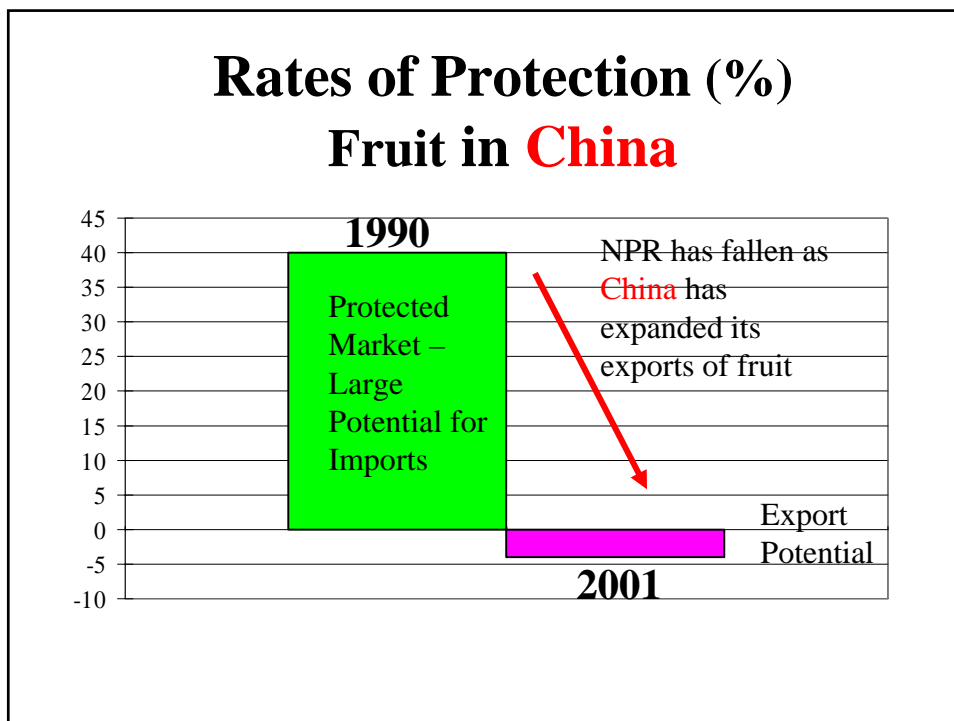


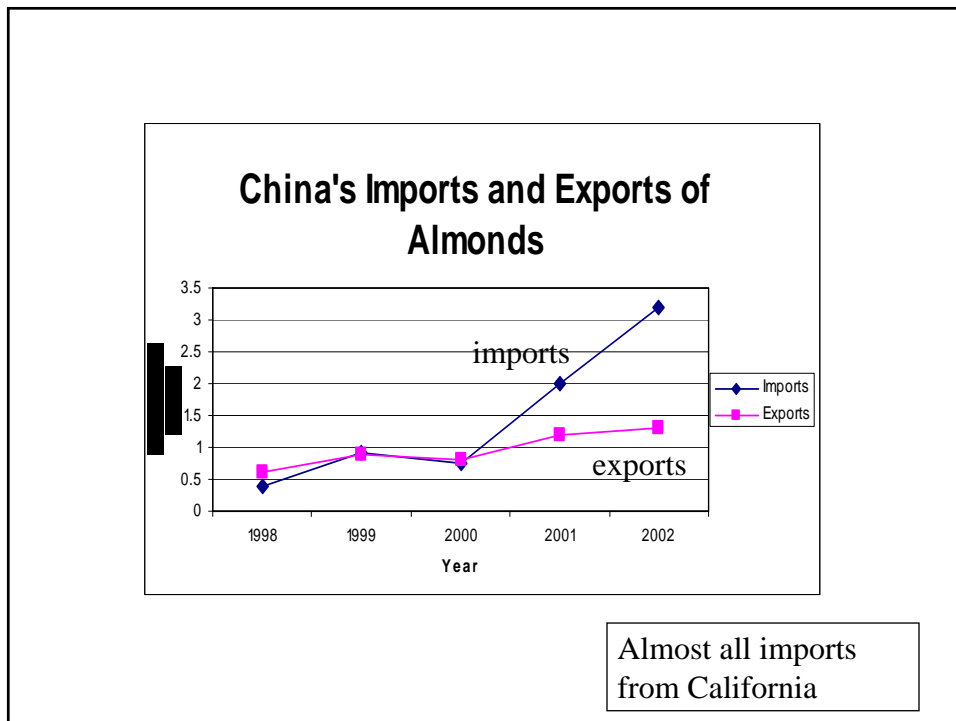
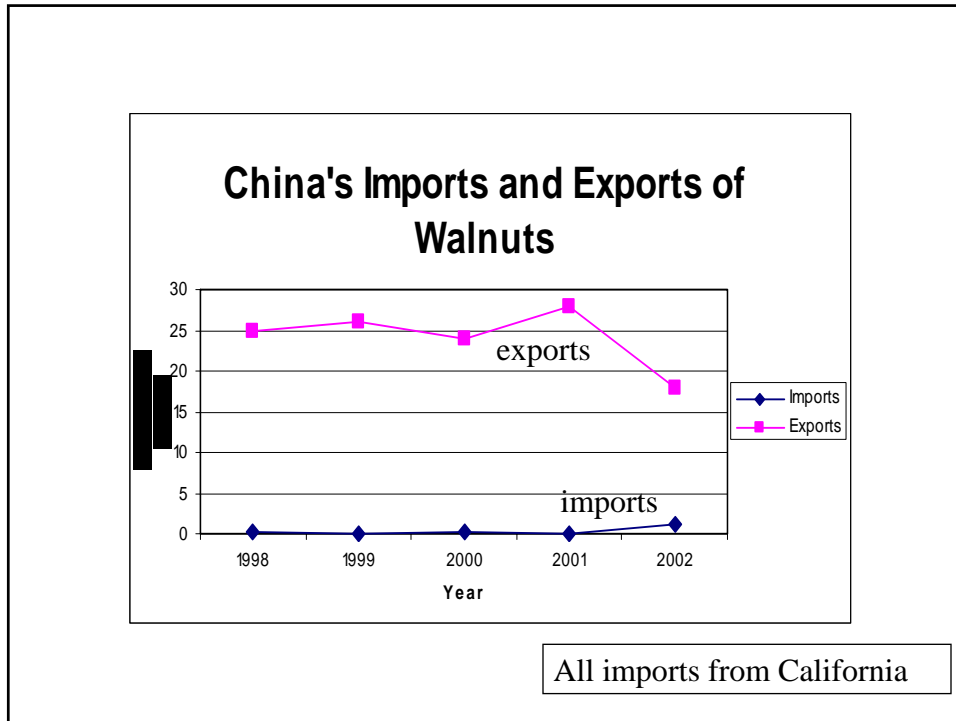
Urban Fruit/Nut Consumption in China

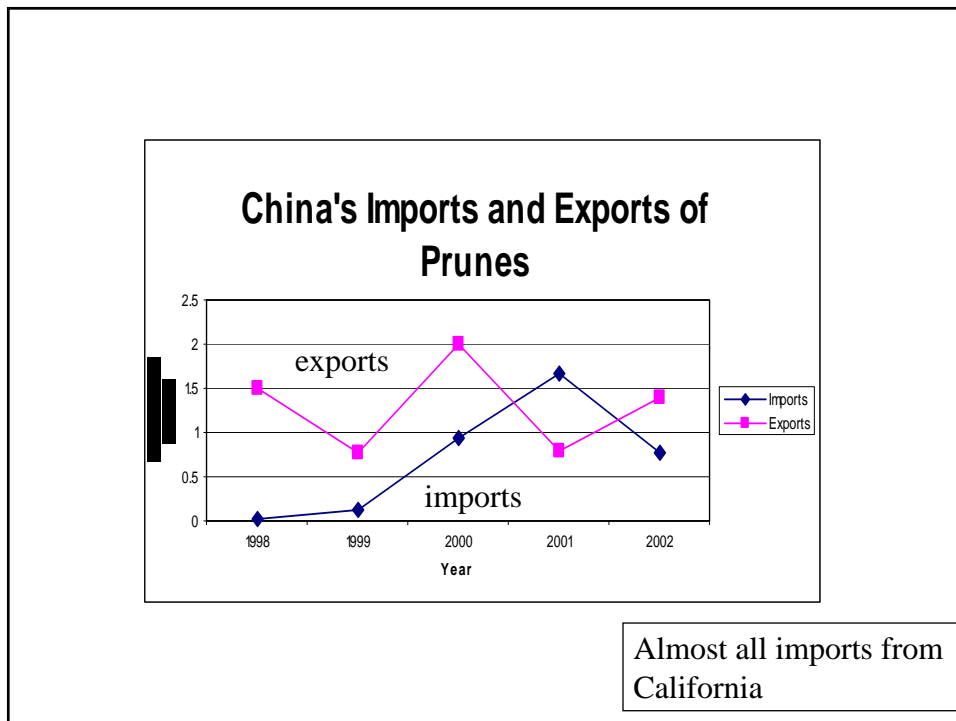
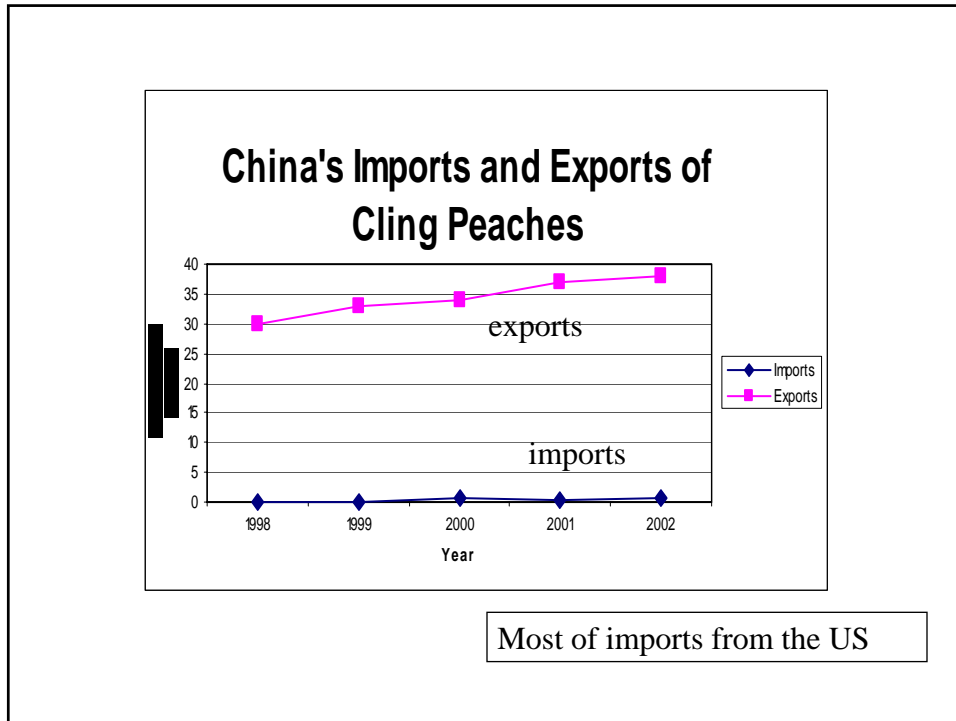


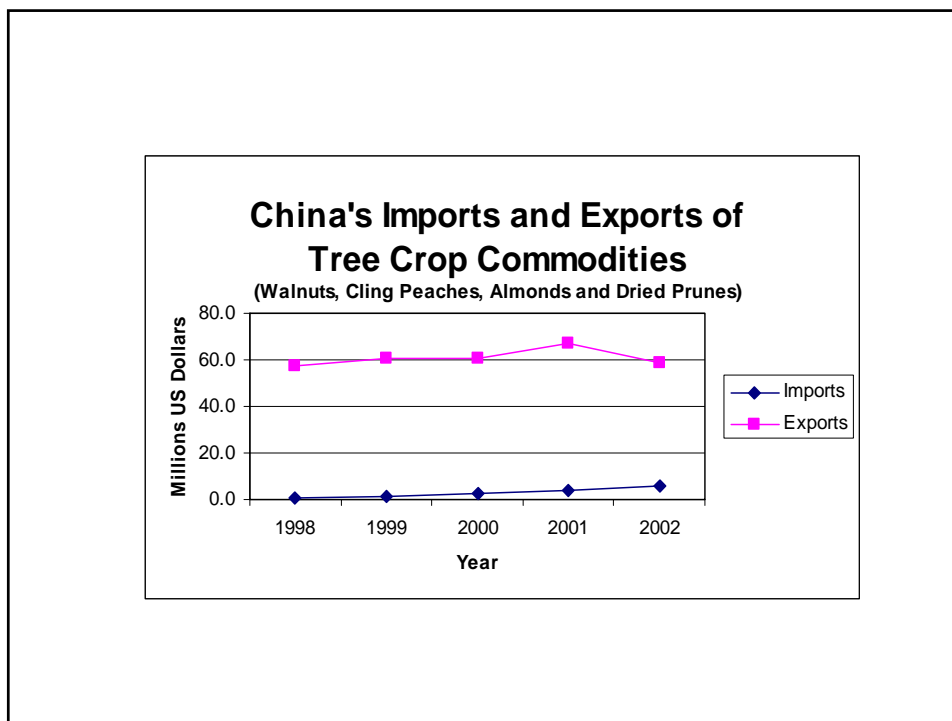
Price of Fruit Relative to All Other Prices, China











Pattern of Fruits and Vegetables Industries in China

- Significant percentage of ag. land used in horticultural products (more than US and more than California)
- Rising sown area and production in many (not all) of horticultural products grown in California
- Although demand growing fast, production growing faster → lower prices → falling NPR → growing exports
- What is future hold? Race: Supply vs. Demand!

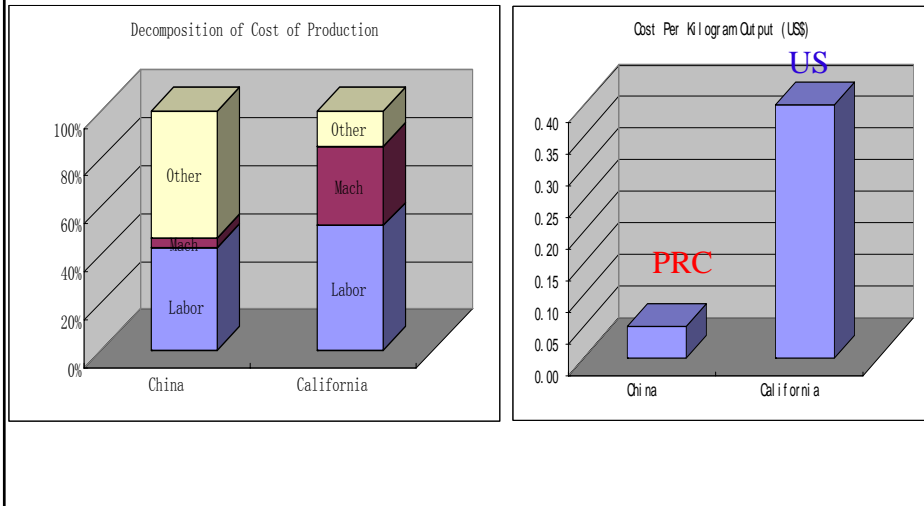
Relative Competitiveness: China versus California

- Comparing the Level of Cost of Production of Major Agricultural Commodities in China and California

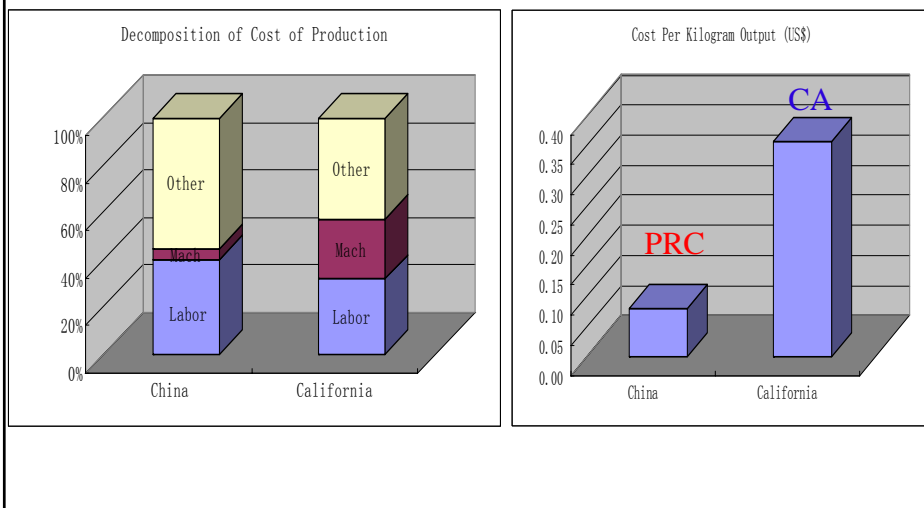
Cost of Production of *Fresh Tomatoes* in China & California, 2000 (\$1=8.3 RMB)

Costs	China	California
Seeds	119	245
Fertilizer	502	210
Chemicals	284	326
Irrigation	72	304
Machinery Costs	44	3983
Labor Costs	1186	6254
Overhead & Management	77	17
Other Variable Costs	412	734
Fixed Cost	52	30
Total Costs Per Hectare	2748	12103
Per kilogram cost (\$/kg)	0.05	0.4
% of labor cost in total	43%	52%
% of machinery cost in total	4%	33%

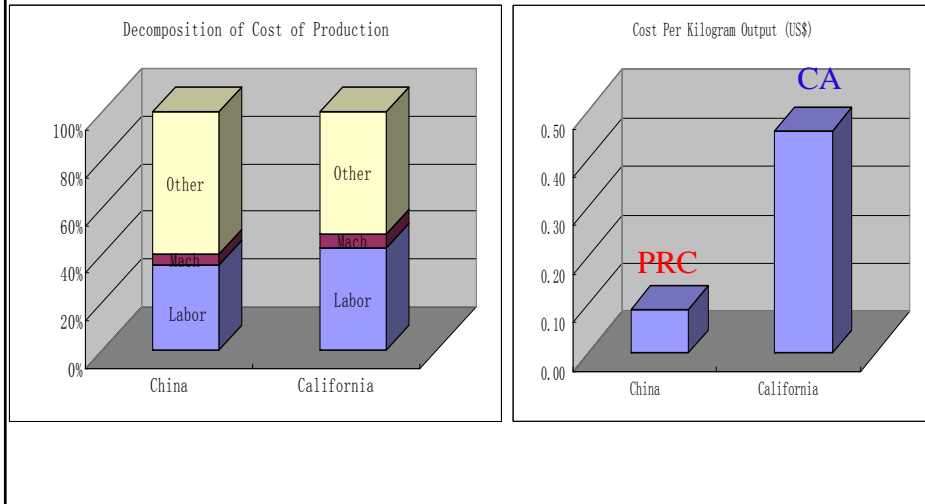
Cost of Production of *Fresh Tomatoes*
China and California



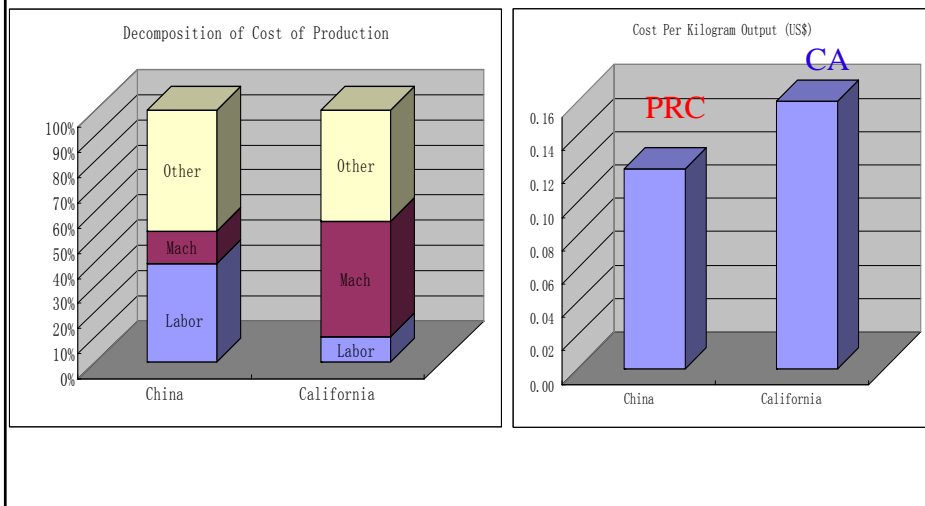
Cost of Production of *Peppers*
China and California



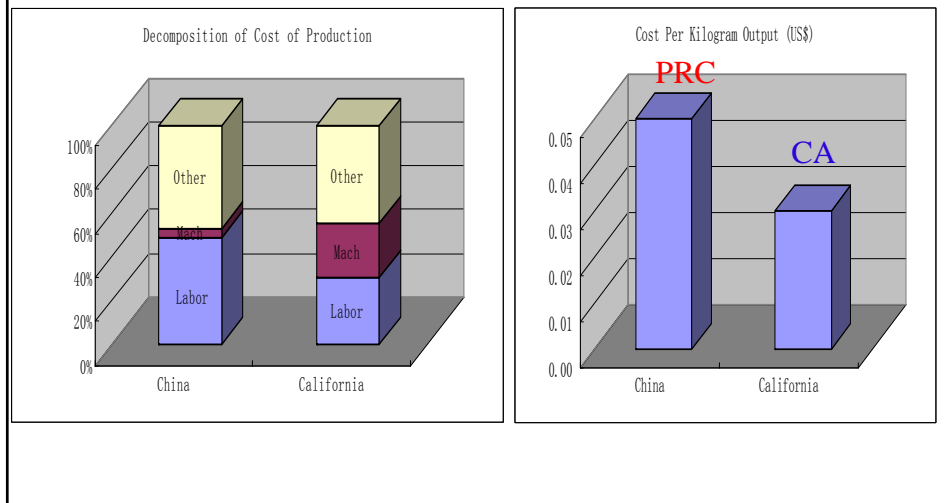
Cost of Production of *Oranges (Navels and Valencias)*: China and California



Cost of Production of *Japonica Rice* China and California



Cost of Production of Processing Tomatoes China and California



Summary -- Competitiveness

- When labor can make up a large part of a crop in China, it has a huge cost advantage ... these are some of the crops that have grown the fastest ...
- When land (rice) or land and capital (processing tomatoes), costs are more similar ... China is investing aggressively in technology and capital-intensive / logistic intensive research and infrastructure

Conclusions

- China's agriculture has been transforming at an incredible rate ... more open; more towards comparative advantage; more efficient
- China has great potential to continue growing in this direction
- Biggest advantage in low production costs of labor intensive commodities

Conclusions

- California is due for tough competition for many crops ...
- Competition: first, in third markets (Japan; Hong Kong; Korea; Taiwan) ... later, directly in CA(?)
- Extent of competition will depend on:
 - rate of improvement of quality and marketing (but this is improving fast!)
 - growth of China's domestic demand
 - how California and other competitors or collaborators perform

What can California do?

- Strategy ONE: “Ignore what is going on”
[but can only adopt this strategy if buy into 1 or more of several assumptions]

China is not a threat

- today's presentation should be evidence this is not so on its own, China is developing VERY FAST ... but there is time
- China also has several important regulatory advantages (but California has other advantages)

China will implode:

- there are severe water problems
- infrastructure is so poor, can not compete

What can California do?

- Strategy TWO: “Raise Protection”

Because China is entering WTO as a “non-market economy,” it is easy to file and win dumping cases ...

garlic

honey

apple juice concentrate

But, these are almost surely a function of the way the laws are written ... China is NOT dumping ... in longer run, politics and WTO appeals will *probably* limit effectiveness of this strategy

What can California do?

- Strategy THREE: “Compete”
 - Research
 - Promote and Differentiate California's
Products
 - Invest and Become Partners