
TABLE GRAPE PRODUCTION & DISTRIBUTION IN CHINA

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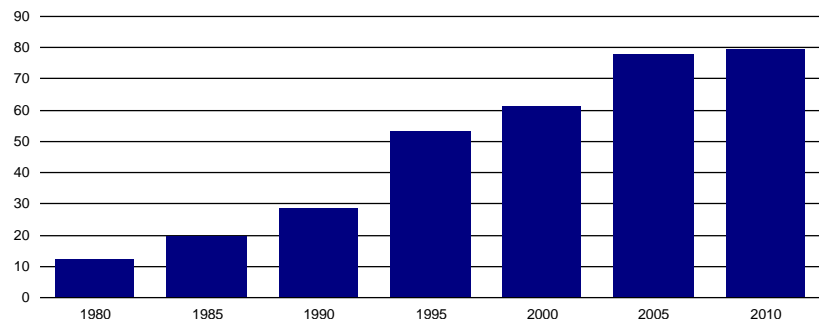


TABLE GRAPES: A MAGIC

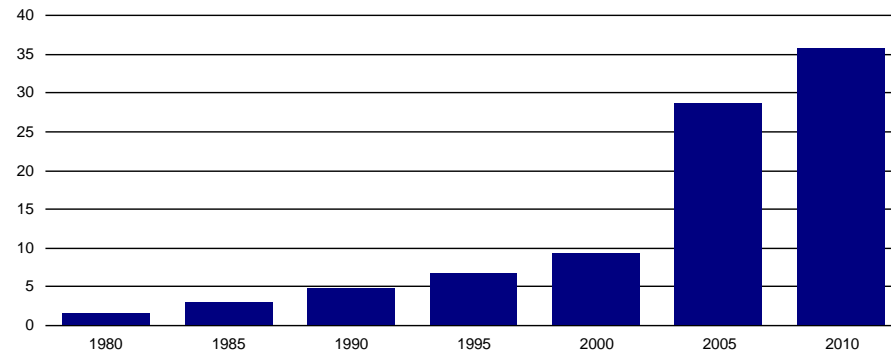


Major Chinese Agricultural Products Increased Steadily

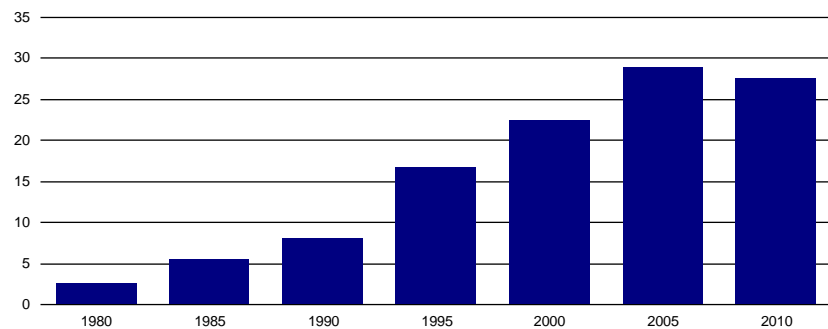
Unit: Million Tons



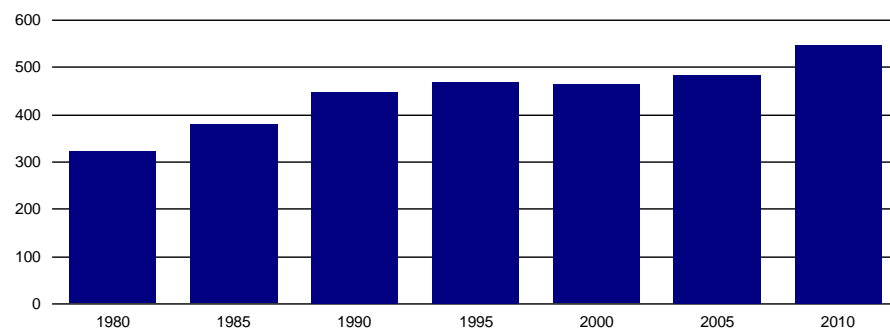
Meat



Dairy



Egg



Grain

Year:1980-2010



Demands for Fruits: Increasing Steadily

Chart1. GDP & average income of urban residents in China

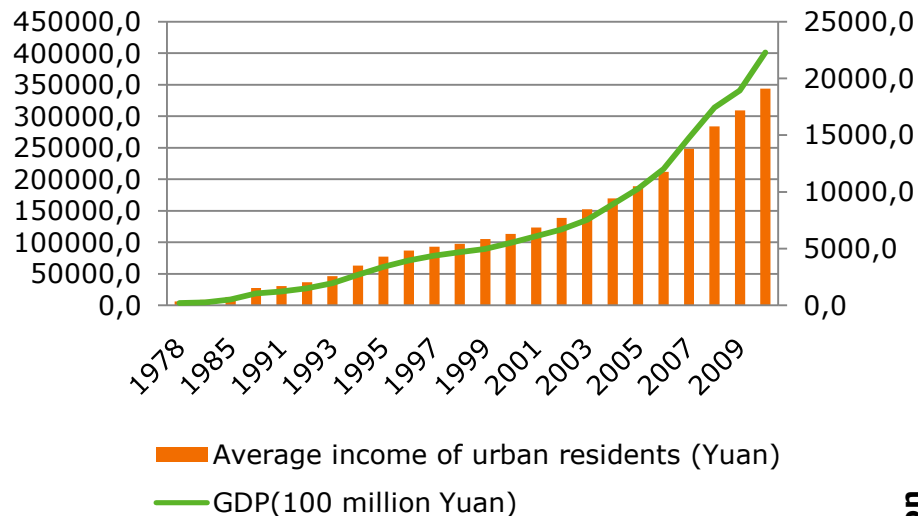
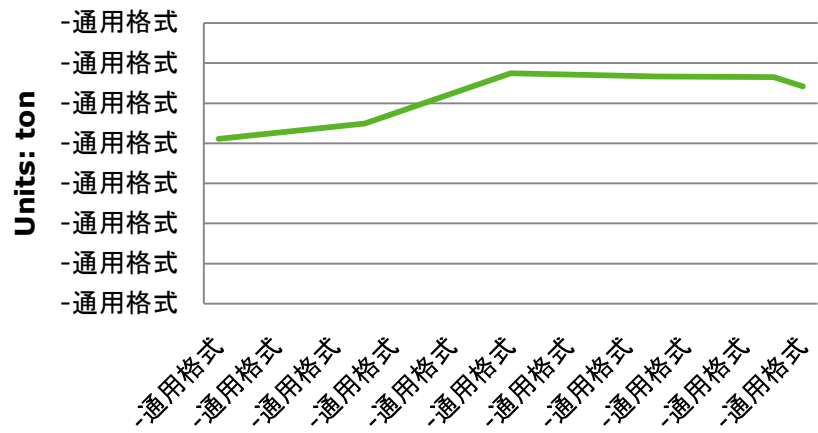


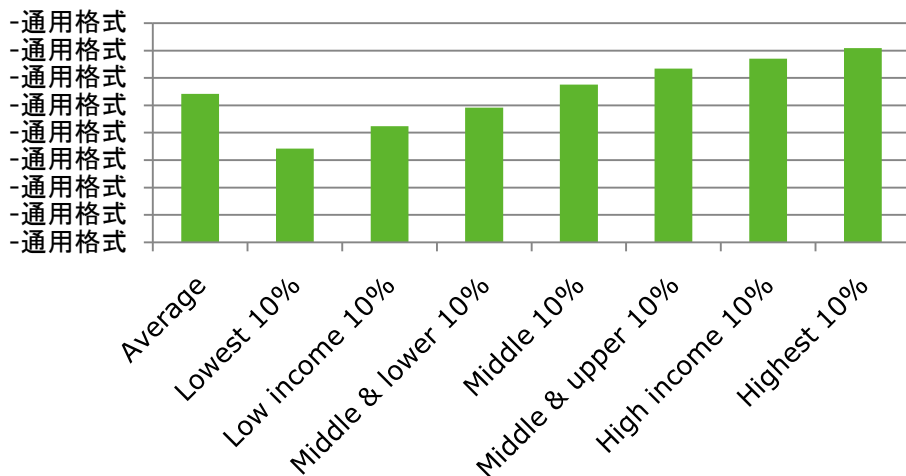
Chart2. Average amount of fruits consumption



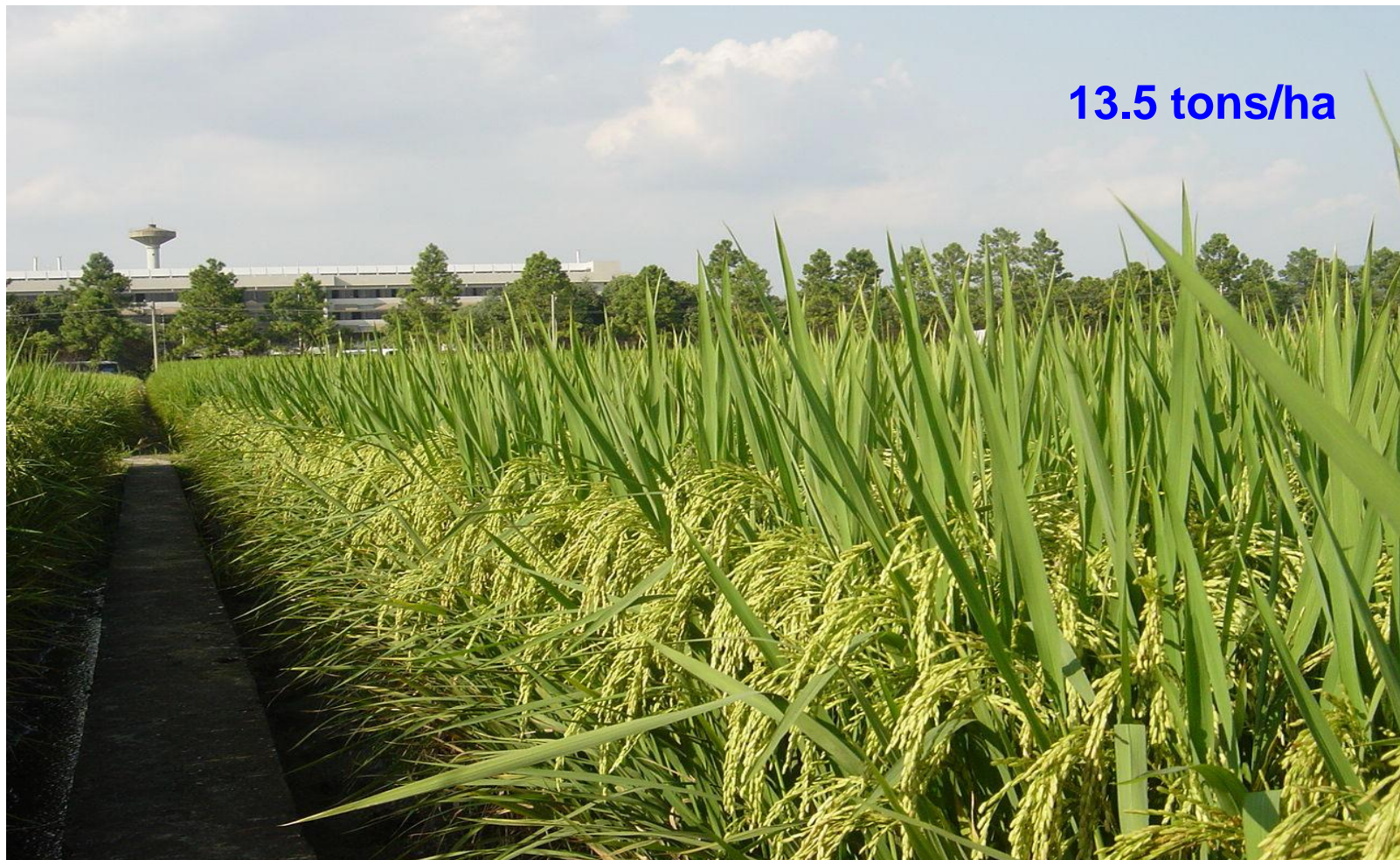
Middle-class: Affects Fruits Consumption

- ❖ The middle-class spend more on fruits consumption.
- ❖ The middle-class has higher requirements on quality and safety of fruits
- ❖ The high-end as well as out-of-season trends of fruits consumption by the middle-class.

Chart3. Fruits consumption of urban residents with different income (kg)



Super Rice: *China is strong*



Dwarf Male-sterile Wheat: *China is strong*



Grape: Chile is strong



Imported Red Globe

进口红提

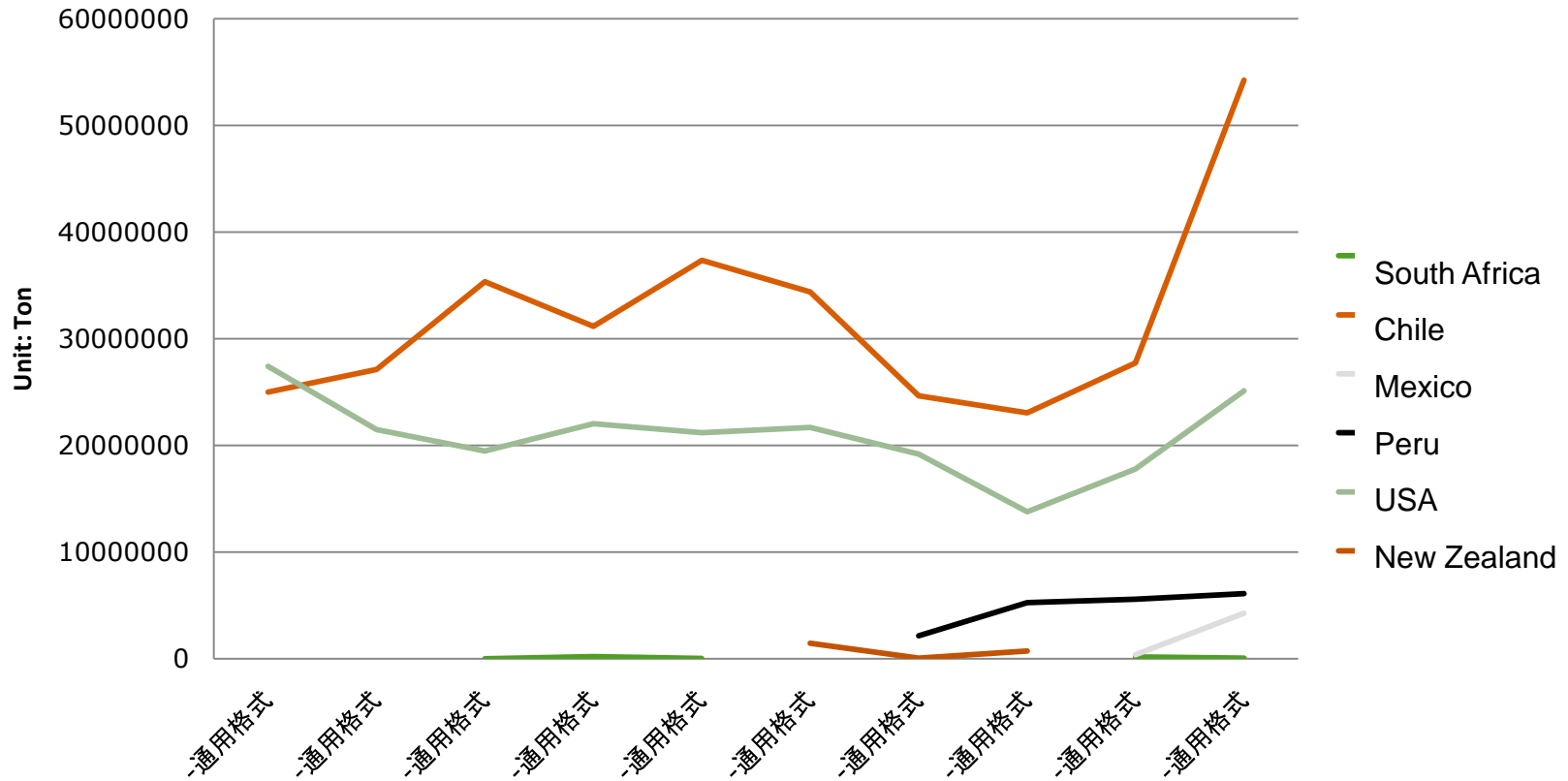


Domestic Produced
Red Globe

国产红提

Chile is Chile!

Major Countries from which China imports Grape



- 1-Chile, 2-United States, 3-Peru, 4-Mexico, 5-South Africa



Table Grape Exports and Imports in China (2006)

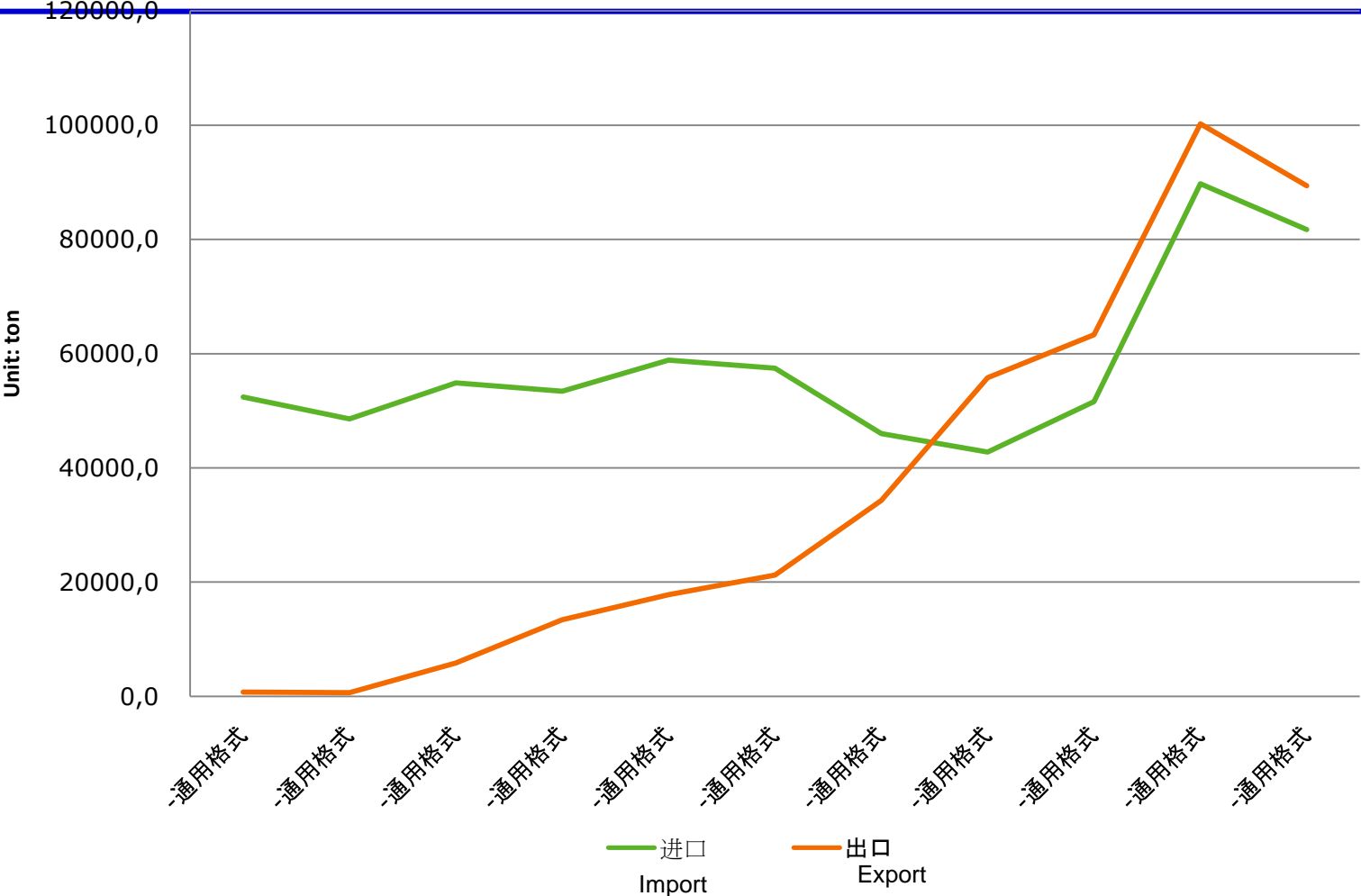
	Export	Import
Volume (t)	34447	68397
Value (x1000US\$)	19511	99097
Price (US\$/kg)	0.56~0.57	1.45

- The volume of import is 2 times more than that of export
- The import is essentially from USA, Chile
- most grapes imported are the Red globe variety

Source of Data: FAO statistic,2006

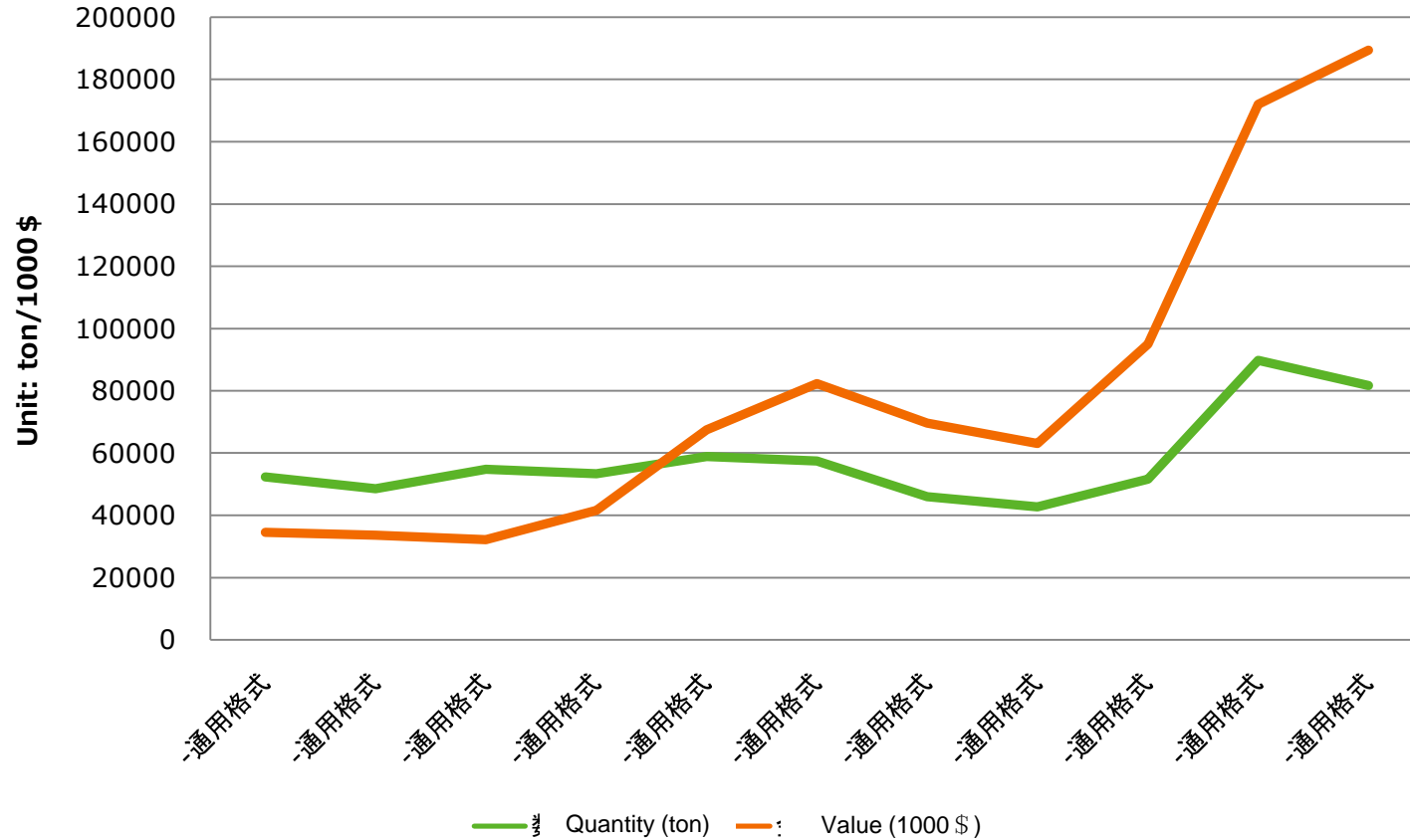


Chinese Grape Imports & Exports



Imported Grape: *Better Quality* Important

Chart 10. The Quantity & Value of Grapes Imported in China



GRAPE SCENIARO ???

- DEMAND-DRIVEN
- TABLE GRAPES



Most Grapes Consumed as Table Grapes



8,430,000 tonnes
In 2010



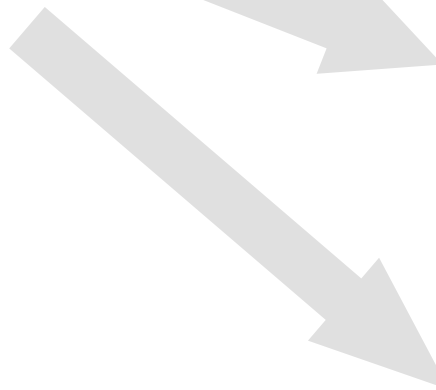
80%

Table Grapes



10%

Wine



10%

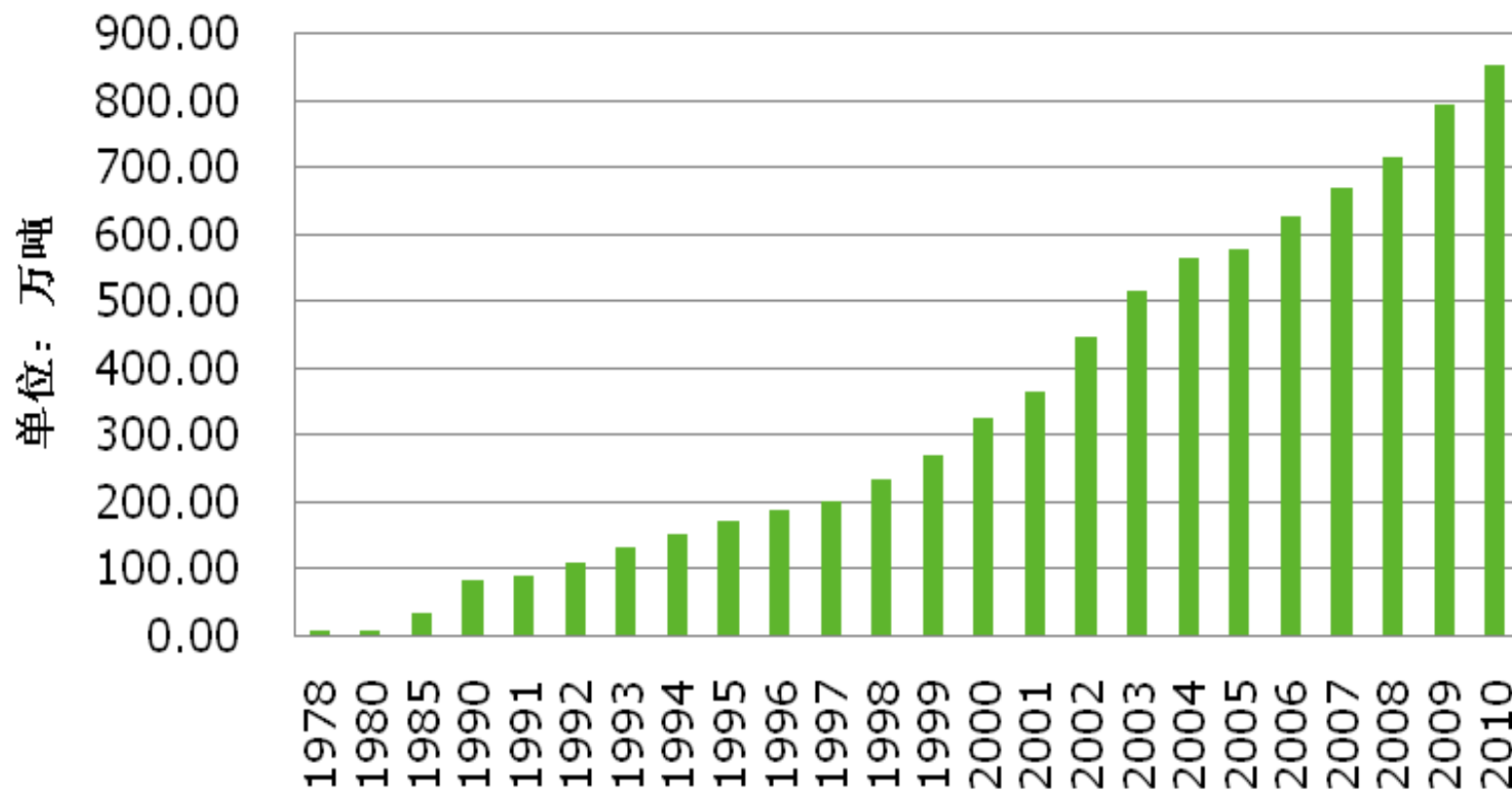
Raisins

TABLE GRAPE PRODUCTION IN CHINA

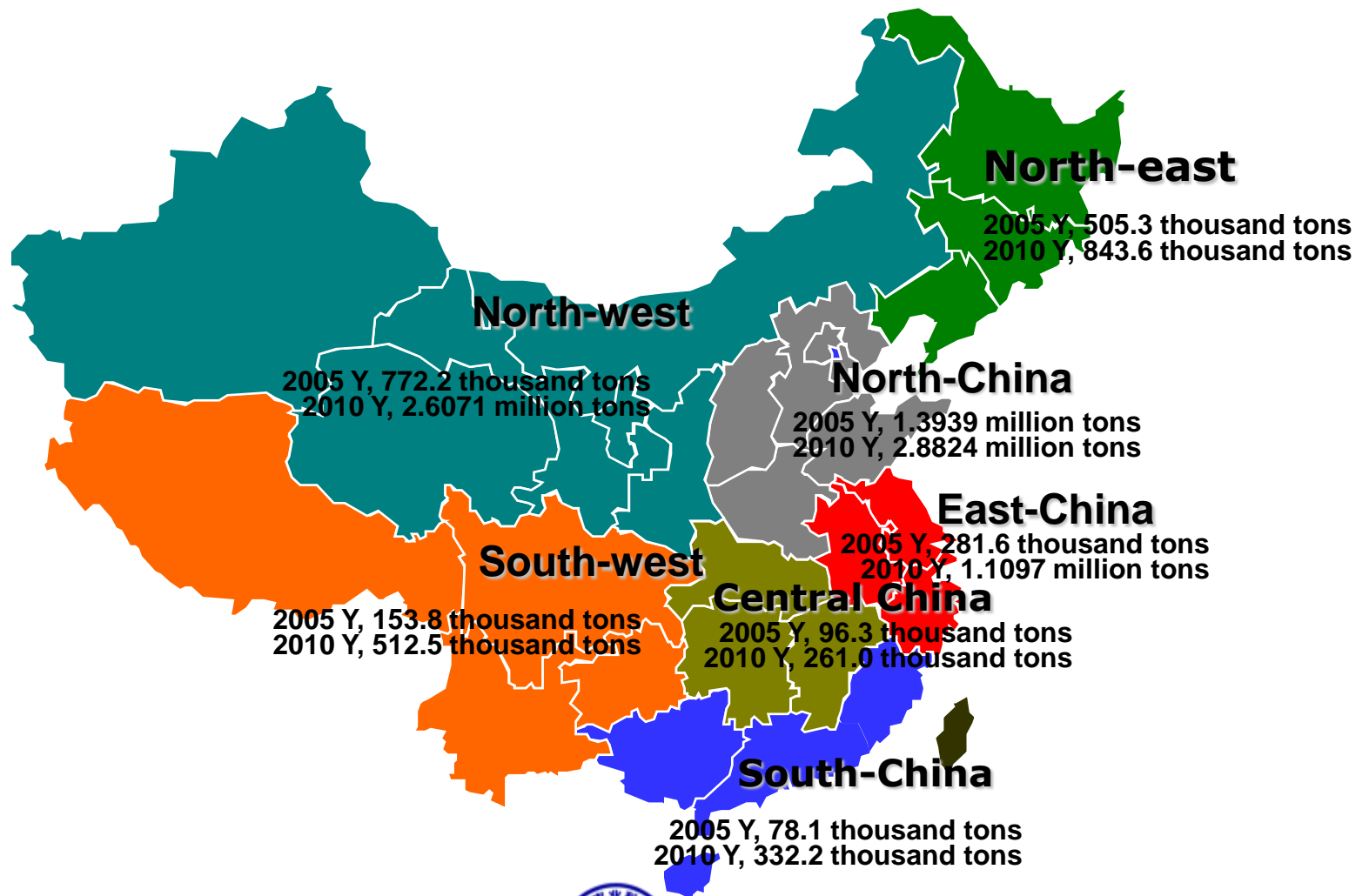


Grape Production in China

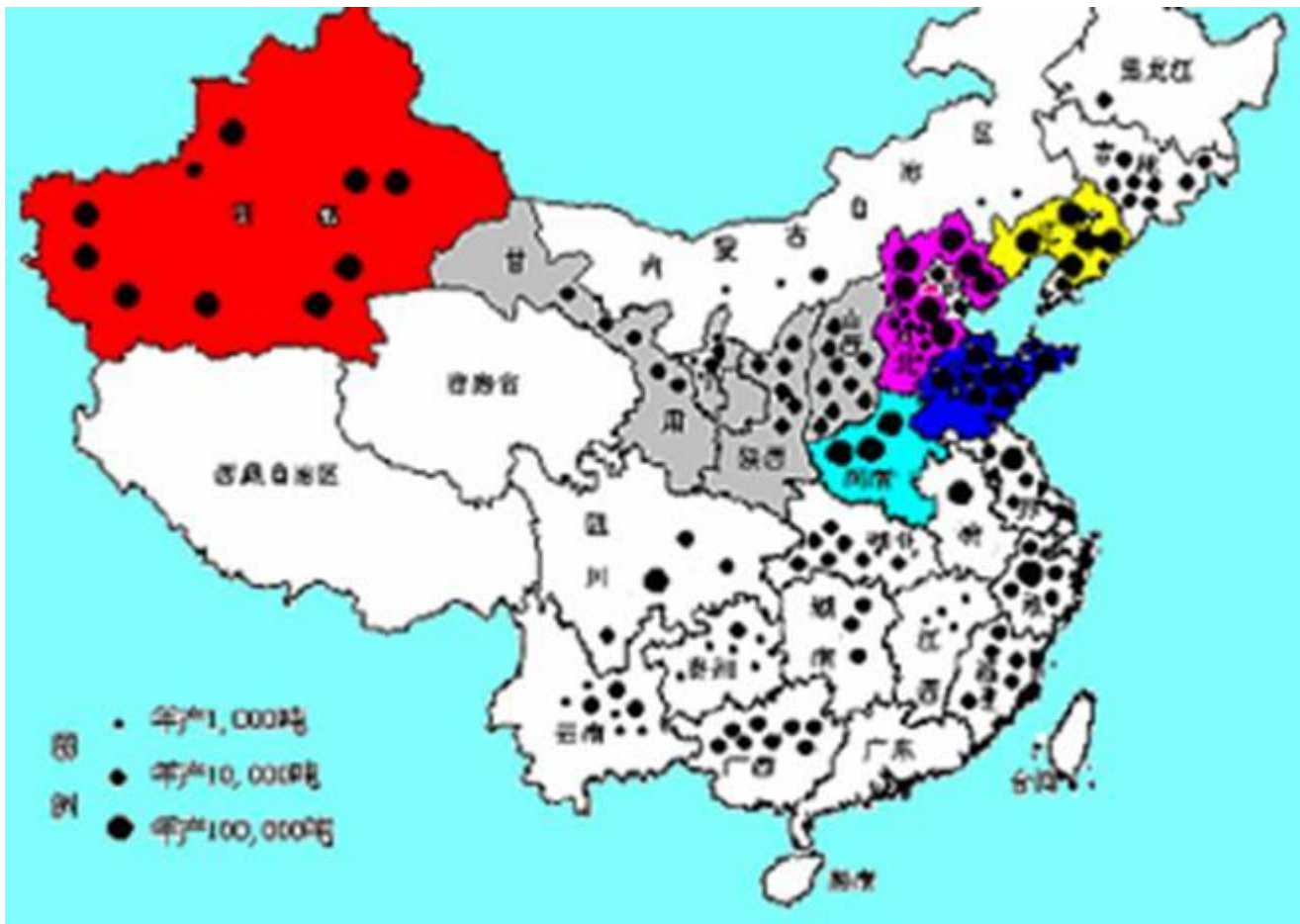
图5. 中国总葡萄产量



7 Major Grape Production Areas in China



Main Production Area Located in the North



Northeast China

- ❖ **Cold-humid climate zone**
- ❖ **Total output:** 843.6 thousand tons
- ❖ **Terrain:** Mostly Plains & Mountains
- ❖ **Main grape varieties:**

Rose, Ziyu, Zizhenxiang, Jingya, Zana, Phoenix

51, Jingxiu, Augusta, 87-1, Bixiang Seedless, Gaint

Rose, Fujiminori, Xianghong, Xiangyue, Kyoho



North China

- ❖ **Dry climate zone**
- ❖ **Total Output:** 2.8824 million tons
- ❖ **Terrain:** Low Hills, Huanghuaihai Plain, Liaohe River Downstream Plain, Loess Plateau, Northern Hebei Mountain
- ❖ **Main grape varieties:**
Rose, Ziyu, Zizhenxiang, Jingya, Zana, Phoenix 51, Jingxiu, Augusta, 87-1, Seedless Bixiang, Gaint Rose, Fujiminori, Xianghong, Xiangyue, Kyoho



East China

- ❖ **Warm Temperature Semi-humid zone**
- ❖ **Total Output:** 1.1097 million tons
- ❖ **Terrain:** basically plains in the north, mostly mountains and hills in the south
- ❖ **Main grape varieties:** Kyoho, Red Globe, Qiuhei, Ribier, Black particles, Concord, Campbell, Jialiniang, Biayu, Carbernet t Sauvignon, Italian riesling



Central China

- ❖ **Warm & Humid Climate Zone**
- ❖ **Terrain:** High in the west and low in the east, being consist of mountain, middle mountain and plains.
- ❖ **Total output:** 261.0 thousand tons
- ❖ **Main varieties:**

Kyoho, Fujiminori, Zana, Rizamat, Pink Toffy, Muscat
Hamburg, Centennial Seedless, Red Globe, Black
Particles, Benitaka, Xiangyue, Gaint
Rose, Xiyanghong, Ruby Okuyama, Rebier



South China

- ❖ **Hot Humid Climate zone**
- ❖ **Terrain:** mainly hills, having some mountains and plains
- ❖ **Total output:** 332.2 thousand tons
- ❖ **Main grape varieties:**
Kyoho, Fujiminori, Xianfeng, Kangtai, Jingchao, Hongruibao, Jixiang, Himrod, Yellow Italian, Christmas Rose, Rebier, Black Particles, Manicure Fingers, Pannonian, Zana, 8611



Southwest China

- ❖ **Hot and semi-dry climate zone**
- ❖ **Terrain:** Sichuan Basin, Yungui Plateau & Tibetan Plateau
- ❖ **Total Output:** 512.5 thousand tons
- ❖ **Main grape varieties:** Phoenix 51, Zana, Centennial Seedless, Muscat Hamburg, Kyoho, etc. Wine grape varieties are Merlot, Cabernet Sauvignon, Pinot Chardonnay, Ugni Blanc



Northwest China

- ❖ **Dry & Semi-Dry Climate Zone**
- ❖ **Terrain:** Sichuan Basin, Yungui Plateau & Tibetan Plateau
- ❖ **Total output:** 2.6071 million tons
- ❖ **Main grape varieties:** White Seedless, Centennial Seedless, Melissa, Dawn Seedless, Rizamat, Red Globe, Qiuhei, Benitaka, Cabernet Sauvignon, Cabernet Franc, Merlot, Pinot noir, Pinot Chardonnay, Riesling, Italian Riesling, Christmas Rose, Italy, Kashi Dakar, Malvasfa, Pink Toffy, Kyoto, Zana, Jingchao, Longyan, Mare's Milk, Rebier, Ruby Seedless, Blue French



Binchuan County, Yunnan Province

- ❖ **Natural Conditions:** Dry-Hot Valley
Areas, dry, hot, rainless
- ❖ **Development**
 - ❖ Farmers began to plant grapes in large-scale in late 1980s, under the guidance of local government
 - ❖ In 2010, the total planting areas of table grape has reached 63.548 thousand mu (4236.53 ha), and the total output is 127.7 thousand tons, with an output value of 945 million Yuan.
- ❖ **Main Varieties**
 - ❖ Early-maturing varieties: Victoria, Summer Black
 - ❖ Late-maturing varieties: Red Globe, Crimson



Turpan, Xinjiang Autonomous Region

❖ Natural condition

- ❖ Dry & rainless in the basin, with abundant sunshine, large temperature difference between day and night, abundant groundwater storage.

❖ Development

- ❖ Planting history of 2500 years

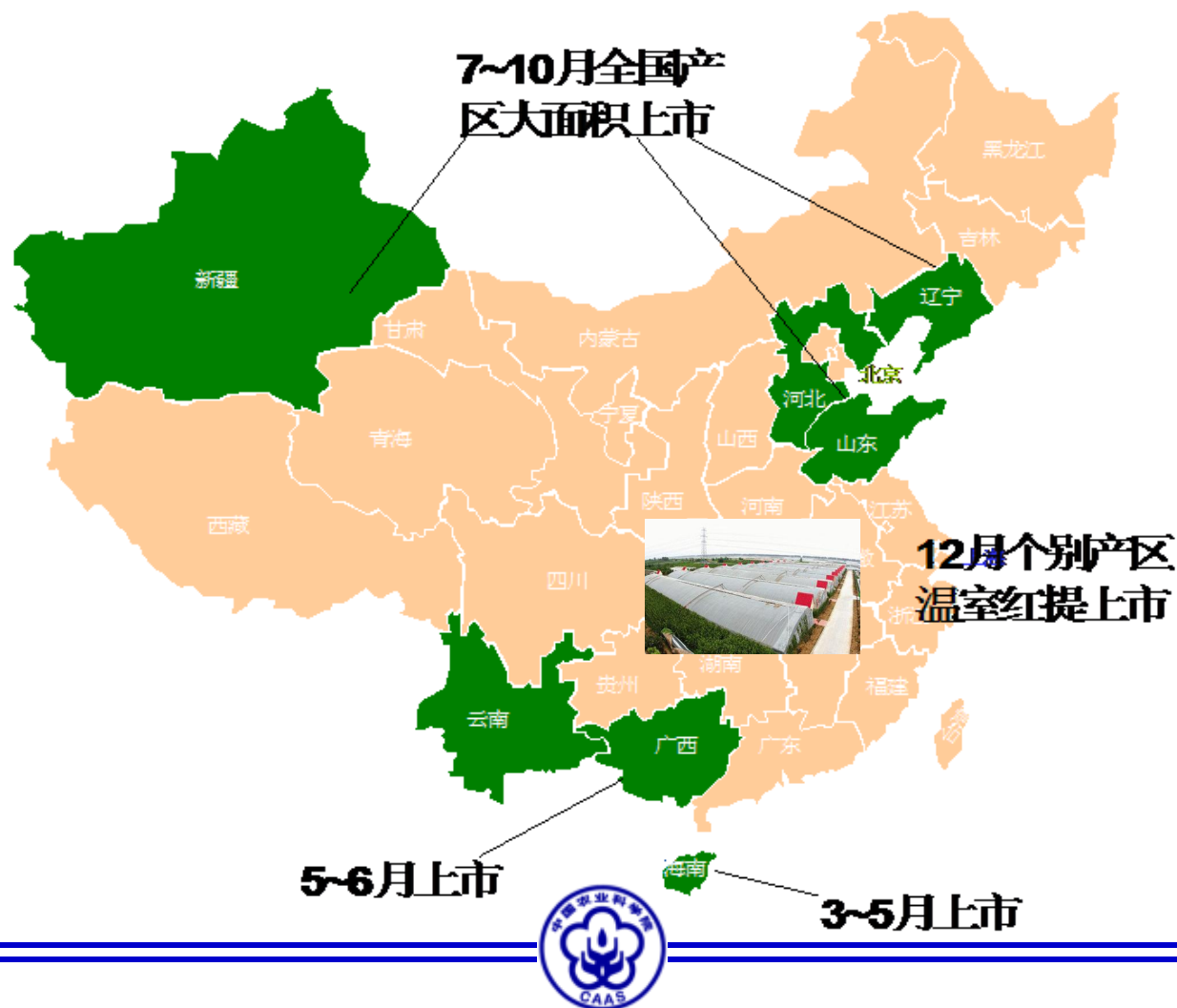
❖ Main varieties

- ❖ more than 500 varieties such as Seedless White, Red Globe, Dark Grape, Muscat Hamburg, White Brecker, etc.
- ❖ more than 20 seedless white grape varieties, which has a sugar rate as high as 22%-24%.



YEAR-ROUND GRAPE SUPPLY IN CHINA

Currently, Chinese consumers can get fresh domestic grapes with high quality all year round



Main Production Area Located in the North

- Main Grape-Growing Regions and their Production, 2009

Province	Vineyard Area		Grape Production	
	1000 ha	% of the Country total	1000 tonnes	% of the Country total
Xinjiang	109.6	25.0	1654.581	24.7
Heibe	57.9	13.2	946.886	14.1
Shandong	44.2	10.1	917.312	13.4
Henan	26.2	6.0	419.473	6.3
Liaoning	25.2	5.7	493.775	7.4
Total of 5 province	263.1	60.0	4432.027	66.2



Table Grapes Varieties

-The following varieties account for 70% of the total output



Kyoho



Thompson Seedless



Summer Black



Red globe



Yatomi Rosa



Muscat Hamburg



Plant Densities for the New Vineyards Establishment

Region	Trellis Form	Spacing between Rows (m)	Spacing in the Row (m)	Density Vines per ha
North China	Pergola	4.5-5.5	0.75-1.0	1818-2963
	Vertical Trellis	2.5-3.0	0.8-1.5	2222-5000
South China	Pergola	5.0-6.0	1.0-1.5	1111-2000
	Vertical Trellis	3.0	1.0-2.0	1666-3333



Vertical Trellis



Pergola



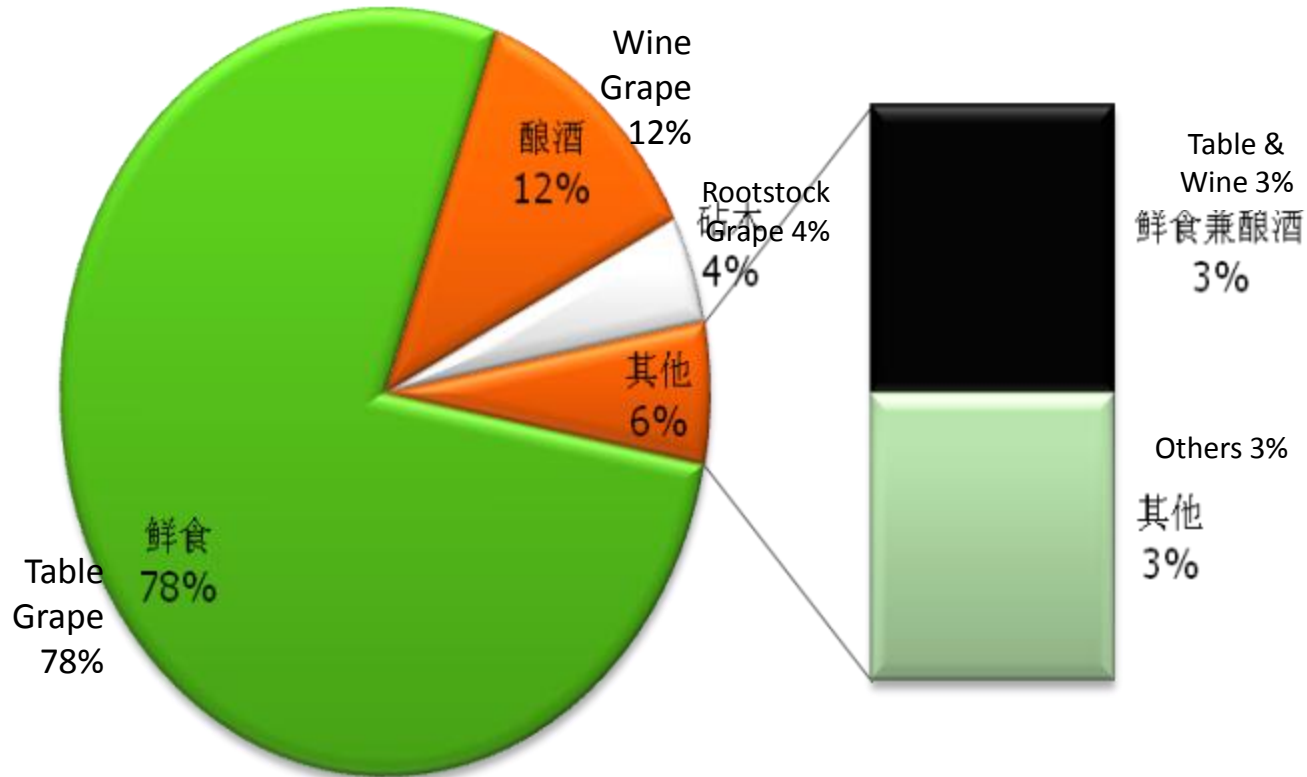
Harvest Date & Index of Some Table Grapes in Shanxi

Cultivar	Harvest Date (Day/Month)	Sugar (Brix)	Acids (%)
Red globe	20/Sep	18	0.55
Kyoho	20/Aug	17	0.88
Victoria	15/Jul	16	0.45
Yatomi Rose	20/Jul	16	0.65
Thompson seedless	10/Sep	21	0.76
Muscat Hamburg	15/Aug	20	0.67
Summer Black	15/Jul	20	0.86
Ju Meigui	10/Aug	19	0.89
Fujiminori	20/Aug	17	0.87

Source: Lujun Wang, 2009



Classification of 67 Chinese self-cultivated grape varieties



GRAPE MARKETING IN CHINA



Distribution Channel of Grape

- **FIVE Major Distribution Channels**
 - Small-scale household grape distribution
 - Large-scale grape cultivation farm
 - Professional farmers' association on grape
 - Farmer-Supermarket Direct-Purchase Mode
 - Grape import channel



1. Small-scale Household Grape Distribution

- In China, more than 80% grape production are from small-scale households.
 - Implementation of household contract responsibility system
- **General Circulation Links :**
 - Farmer→Broker→Wholesaler in original areas (origin market)
→Wholesalers in sales areas (wholesale markets at the point of consumption) →Retailer (retail market) →Consumers



2. Large-scale Grape Cultivation Farm

- **The number of large-scale grape cultivation farm is gradually increasing in China.**
 - The land circulation policy has promoted large-scale operation
- **Distribution Channels :**
 - Type 1: Farmer→Out-of-town fruits wholesalers who come to purchase→Wholesale market→ Retailer (retail market) →Consumers
 - Type 2: Farmers deliver directly to the point of consumption, then arrange staff to sell grapes at the wholesale market at the point of consumption
 - Type 3: Farmers supply grapes directly to retailers.



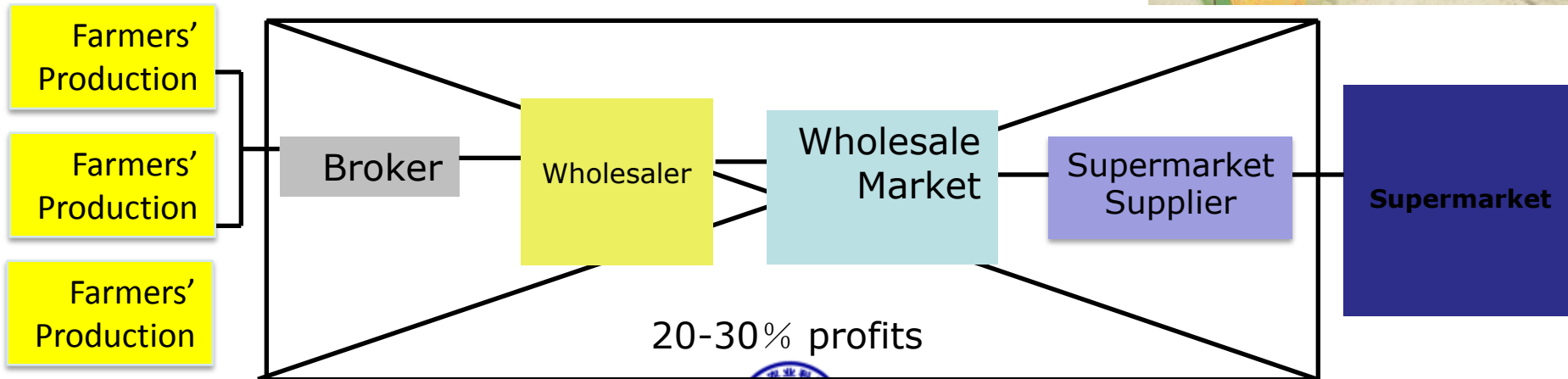
3. Farmers' Professional Association On Grape

- **The farmers' professional association is developing rapidly in China**
 - The <Law of farmers professional cooperatives > was released in 2007
 - There has been more than 440 thousand farmers' professional associations in China until June 2011.
- **Distribution Channels**
 - Basically the same as large-scale farms
 - Members sell grapes through association, then the association return back some of its profits/surplus.



4. Farmer-supermarket Direct-purchase Mode

- This new agro-products purchase mode was developed in 2007
- Type of Purchase
 - No. 1: Supermarkets purchase grapes from farmers' association
 - No.2: Supermarkets purchase grapes from large-scale farms
- Advantages
 - Circulation-reducing, cost-savings, profit return



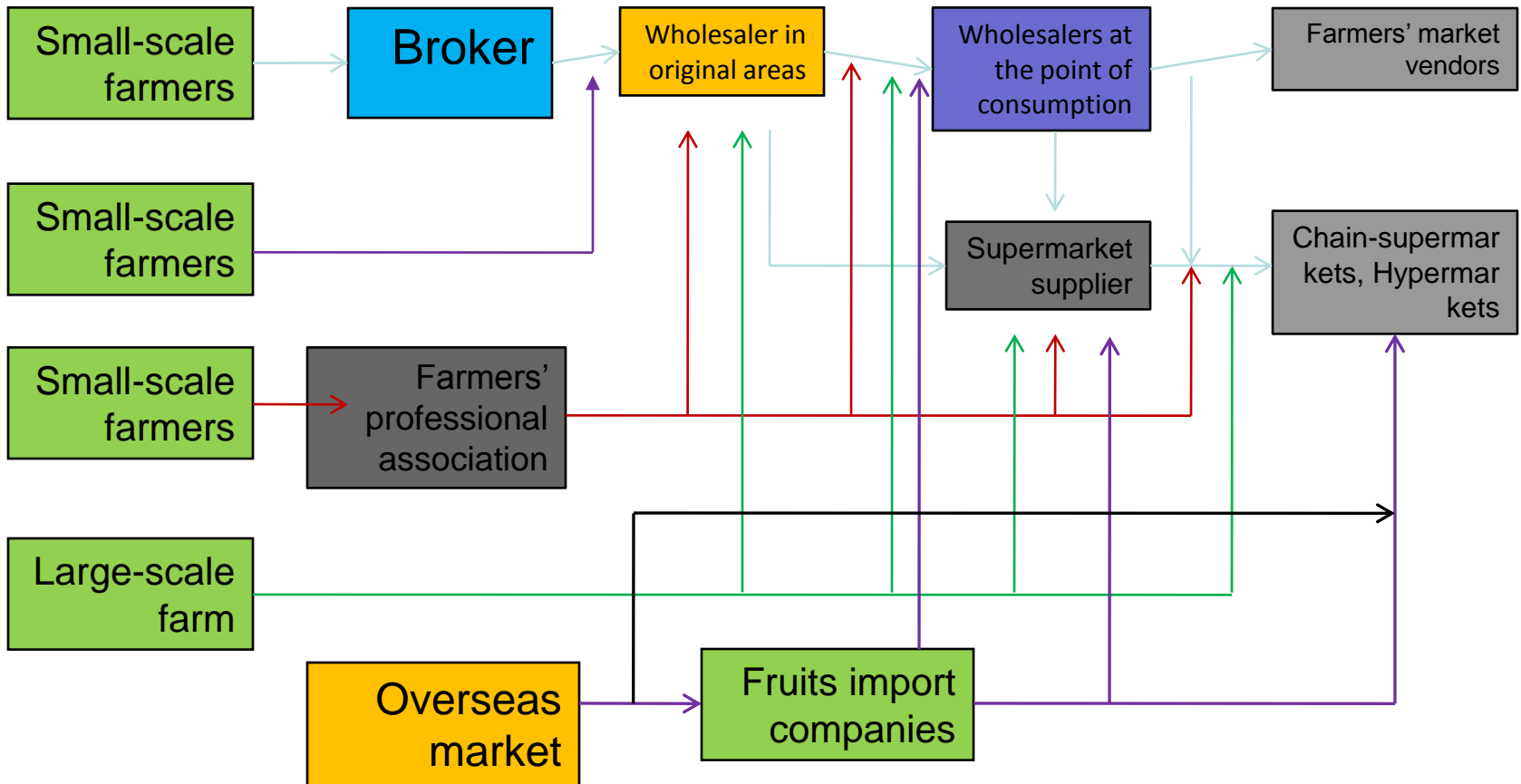
5. Grape import channel

- **Currently, the import of grapes mainly depend on professional fruits import companies.**

- **Distribution Channels:**
 - Type 1: Overseas→ Import companies→Wholesalers (wholesale markets at the point of consumption) →Supermarket supplier→ Supermarket
 - Type 2: Some import companies could deliver grapes directly to supermarkets
 - Type 3: Some companies with global purchasing network, such as Wal-Mart, Carrefour and Metro, could import grapes directly from abroad.



Main Distribution Channels Of Grapes In China



ZHENGZHOU INSTITUTE OF POMALOGY

Grape research at CAAS



A National Institute Specialized in Fruit Research

- Located in Zhengzhou, Henan Province
- Covering an area of 45ha, including 38ha experimental fields
- Employing 212 staff members
- Specilized in deciduous fruit trees



Main Gate



Research Building



Laboratory



Research Priorities in Grape

-Collection, Reservation, and Identification of Agronomic Characteristics for Grape Germplasm Resources



Chinese National Grape Germplasm Repositories



Research Priorities in Grape (Continued)

-Grape Breeding

- **Major Objectives:** select excellent cultivars adapted to Chinese climatic conditions
- **Principal Characteristics:** Seedlessness, large berry size, good appearance, and high quality
- **Cultivar Resources:** triploid or tetraploid
- **Disease Resistance:** downy mildew, anthracnose, ripe rot, and grey mold



Hei jianiang



Zhengzhou Zaoyu



Chaobao



Xiazhi Hong

Research Priorities in Grape (Continued)

-Biotechnology

- **Haploid plants** for genetic analysis and crop improvement
- **Protoplast fusion** and **somatic hybridization** for partial gene transfer
- **genetic engineering** for the target gene transfer
- **analysis of DNA** for the classification, identification, and isolation of useful genes



Embryo-culture and Micro-propagation



Research Priorities in Grape (Continued)

-Low-cost Production and New Technology for Labour Saving Culture



“Y” type Vertical Trellis with the umbrella system



CONCLUSIONS

- Grape: an important crop now in China
- Table grapes: still increasing
- Chile table grapes & wines: welcome to China
- Grape research: welcome to CAAS



GRACIAS!
OBLIGARO!
THANK YOU!

谢谢!

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