# Sericultural Extension System

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# China Sericulture Production 2008-2012

| Year | Mulberry hectare | Silkworm Seed 10000box | Cocoon output 1000t | Cocoon price euro/kg |
|---|---|---|---|---|
| **2012** | **82.7 +2.9%** | **1639 -0.9%** | **645.5 +1.3%** | **4.52 +2.9%** |
| **2011** | 80.4 +1.5% | 1654 +3.6% | 637.2 -2.7% | 4.39 +1.7% |
| **2010** | 79.2 -0.75% | 1596 +11.76% | 655.1 +1.4% | 3.74 +3.7% |
| **2009** | 79.8 -8.5% | 1428 -1.84% | 572.8 -1.6% | 2.74 +3% |
| **2008** | 87.2 | 1751 | 683.4 | 2.10 |

# The 1st International Symposium on Sericulture in Tropical-subtropical Area Guangxi September 10-13

Guangxi Zhuang Nationality Autoned in a tropical-subtropical area, Southern China. In 2012, Guangxi made its highest records in the history on the areas of mulberry fields and the outputs of silkworm cocoons, which respectively measured up to 168 thousand hectares and 256,000 tons and its output of mulberry silkworm cocoons occupied more than 40% of China's total.

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2. **Sericultural Extension System in China**

# 1. Agricultural extension in China

## 1.1 Law of the PRC on the Popularization of Agricultural Technology

- "***Popularization of agricultural technology***" mentioned in this Law, refers to the dissemination and the application of agro-techniques to the entire process of the pre-inter-post production of agricultural production by means of experiment, demonstration, training, and consultation services.

# 1. Agricultural extension in China

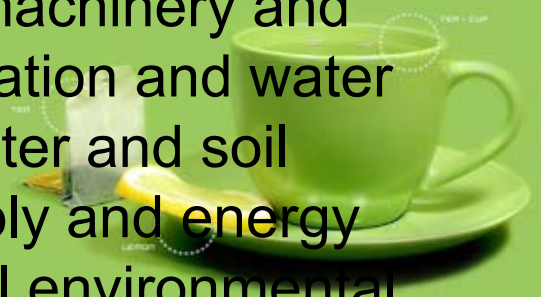
## 1.1 Law of the PRC on the Popularization of Agricultural Technology

- This Law is formulated with a view to strengthening the work of agro-technical popularization, enabling the prompt application of results of agricultural scientific research and practical techniques to agricultural production, safeguarding the development of agriculture and realizing the modernization of agriculture.

# 1. Agricultural extension in China

## 1.1 Law of the PRC on the Popularization of Agricultural Technology

- "***Agro-techniques***" mentioned in this Law refer to the scientific research results and practical techniques to be applied to crop cultivation, forestry, animal husbandry and fishery, including techniques of breeding good strains, applying fertilizers, preventing and controlling plant diseases and insect pests, as well as plant cultivation and animal husbandry; techniques of processing, preserving, storing and transporting products and by-products of agriculture; techniques of agricultural machinery and agricultural aviation; techniques of irrigation and water conservancy, soil improvement and water and soil conservation; techniques of water supply and energy utilization in rural areas and agricultural environmental protection; techniques of agricultural meteorology, and



# 1. Agricultural extension in China

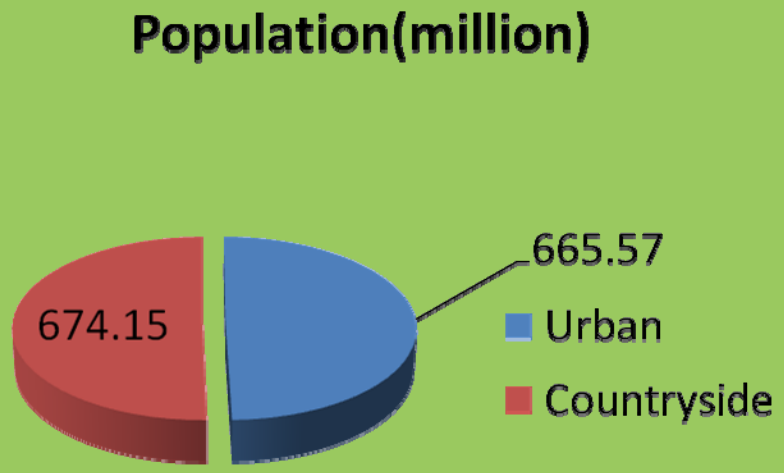
## 1.2 Reform on the Agricultural Operational System in China

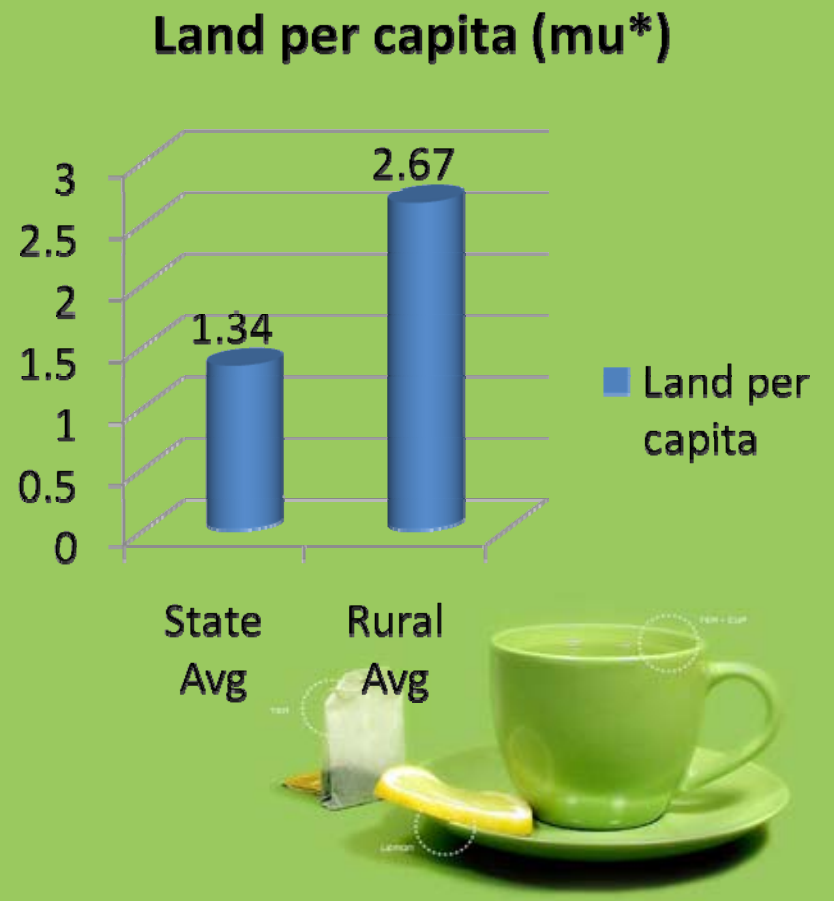
- ***Household Contract Responsibility System***

The system allows farming households to manage agricultural production on their own initiatives while the farmland remains in the ownership of the rural collective. The start of this system is widely accepted as a milestone in the economic opening

# 1. Agricultural extension in China

**Farmland per capita in China**

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# Agricultural Administrative System

- Ministry of Agriculture
- Provincial Department of Agriculture
- City Bureau of Agriculture
- County Bureau of Agriculture

Prefecture Bureau of Agriculture

# Agricultural Education System

- 58 agricultural universities and colleges (0.8 million graduates)
- 365 agricultural secondary schools (1.3 million graduates)
- 2,600-plus agricultural TV and broadcasting schools (0.1 million graduates )
- Annually, more than 30 million farmers attend technical training courses

# Agricultural Research System

- Chinese Academy of Agricultural Sciences (38 institutes)
- Provincial Academy of Agricultural Sciences
- City Academy/Institute of Agricultural Sciences
- County Agricultural Research Institute/institute

# 2. Sericultural Extension System in China

## 2.1 Sericulture Extension

- Ministry of Agriculture
- (Division of Economic Crops, Department of Agricultural Crop Management)

- Provincial Department of Agriculture
- (Bureau of Agricultural Crop Management or Sericulture Extension Station)

- City Bureau of Agriculture
- (Sericulture Extension Station)

- County Bureau of Agriculture
- (Sericulture Extension Station)

- Extension workers, Town government

- Advanced farmers

# Silk Administrative System

- National Cocoon and Silk Coordination Office(Department of Market Operation and Consumption Promotion)
- Provincial Cocoon and Silk Coordination Office (Division of Market Operation and Consumption Promotion., Department of Commerce)
- City Bureau of Commerce ,Section of Market Operation and Consumption Promotion
- County Bureau of Commerce , Section of Market Operation and Consumption Promotion

Prefecture Bureau of Agriculture

# National Cocoon and Silk Coordination Office

- THE SUGGESTIONS CONCERNING THE REFORM OF THE COCOON-SILK OPERATIONAL AND MANAGEMENT SYSTEM （October 10， 1996）
- **The State Economic and Trade Commissions, PRC(Revocation) to undertake the day-to-day work of the State Coordinating Group for Cocoon and Silk**
- **Ministry of Commerce, PRC**

# 2.2 Sericulture Education

- Sericulture - 7 universities
- Silk Textile – 2 universities

# Southwest University

- College of Biotechnology

# South China Agriculture University

- College of Animal Science

# Zhejiang University

- College of Animal Sciences

# Anhui Agricultural University

- School of Life Science

# Shandong Agricultural University

- College of Forestry

# Soochow University

- Sericulture Institute at Medical College
- College of Textile and Clothing Engineering

# Shenyang Agricultural University

- College of Biotechnology

# Zhejiang Sci-Tech University

# History of Zhejiang Sci-Tech University

- 1897 Silkworm School
- 1908 Zhejiang Secondary Silkworm and Mulberry School
- 1911 Zhejiang High Silkworm and Mulberry School
- 1912 Zhejiang Secondary Silkworm and Mulberry School □1912 The school set up the silk department□.
- 1913 Zhejiang Public A-grade Silk School
- 1926 Zhejiang Silkworm and Mulberry Vocational School
- 1928 Zhejiang Provincial Secondary Silkworm and Mulberry School
- 1933 Zhejiang Provincial High Silkworm and Mulberry Vocational School
- 1934 Zhejiang Provincial High Silk Vocational School

# History of Zhejiang Sci-Tech University

- 1949 Zhejiang Hangzhou Silk Vocational School
- 1952 Zhejiang Silk Manufacturing Technical School
- 1953 Hangzhou Industrial School
- 1958 Zhejiang Textile Specialized School
- 1960 Hangzhou Industrial College
- 1961 Zhejiang Textile Specialized School
- 1964 Zhejiang Silk Industrial College
- 1970 Hangzhou Industrial College
- 1975 Zhejiang Silk Industrial College
- 1999 Zhejiang Engineering College
- 2004 Zhejiang Sci-Tech University

# 2.3 Sericulture Research institutions

- There are 23 sericultural research institutes in China. Among them, Sericultural Research Institute, Chinese Academy of Agricultural Sciences is only one national institute. The rests are provincial or regional institutions.

# SRICAAS

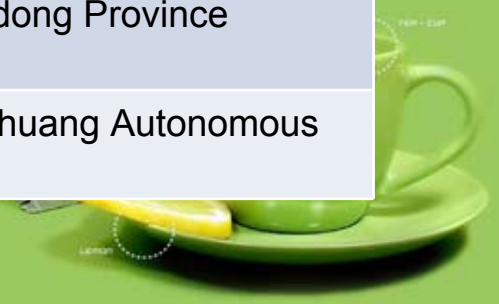

◆Administrative Office
◆Key MOA laboratory of mulberry & silkworm genetics
◆MOA Test Center for Sericultural Products
◆ Silkworm rearing technology, germplasm & breeding
◆Silkworm physiology and pathology
◆Moriculture
◆Sericulture information centre
◆China Society for Sericultural Sciences
◆Silkworm medical factory

# Provincial Sericulture Research institutions

| Name | Address |
|---|---|
| Sericultural Research Institute, Zhejiang Academy of Agricultural | Hangzhou, Zhejiang Province |
| Sericultural Research Institute, Anhui Academy of Agricultural | Hefei, Anhui Province |
| Shandong Sericultural Research Institute | Yantai, Shandong Province |
| Jiangxi Institute of Sericulture and Tea | Nanchang, Jiangxi Province |
| Helongjiang Sericultural Research Institute | Harbin, Helongjiang Province |
| Jilin Academy of Sericultural Sciences | Jilin, Jilin Province |
| Liaoning Sericultural Research Institute | Fengcheng, Liaoning Province |
| Henan Academy of Sericultural Sciences | Nanyang, Henan Province |
| Institute of Economic Crop, Hubei Academy of Agricultural Sciences | Wuhan, Hubei Province |
| Hunan Sericultural Research Institute | Changsha, Hunan Province |

# Provincial Sericulture Research institutions

| Name | Address |
|---|---|
| Hebei Sericultural Research Institute, Chengde | Hebei Province |
| Shanxi Academy of Sericultural Sciences | Yuncheng, Shanxi Province |
| Shaanxi Institute of Sericulture and Silk | Yangling, Shaanxi Province |
| Xinjiang Sericulture Research Institute | Hetian, Xinjiang Uighur Autonomous Region |
| Sericultural Research Institute, Sichuan Academy of Agricultural Sciences | Nanchong, Sichuan Province |
| Institute of Sericulture & Chilli, Guizhou Academy of Agricultural Sciences | Zunyi, Guizhou Province |
| Sericulture & Bee Research Institute, Yunnan Academy of Agricultural | Mengzi, Yunnan Province |
| Chongqing Academy of Sericultural Sciences | Beibei, Chongqing Municipal City |
| Sericultural & Agri-Food Research Institute, Guangdong Academy of | Guangzhou, Guangdong Province |
| Guangxi Sericulture Station | Nanning, Guangxi Zhuang Autonomous Region |



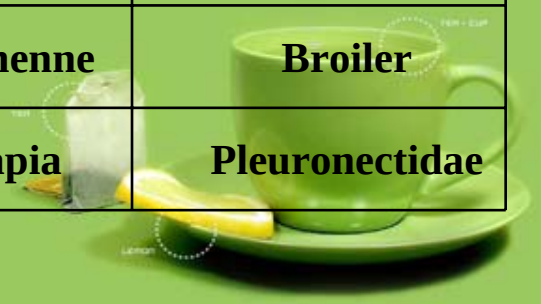
# City Sericulture Research institutions

| Name | Address |
| --- | --- |
| Sericultural Research Institute, Huzhou Academy of Agricultural Sciences | Huzhou, Zhejiang Province |
| Hulunbeier Sericultural Research Institute | Zhalantun, Inner Mongolia Autonomous Region |

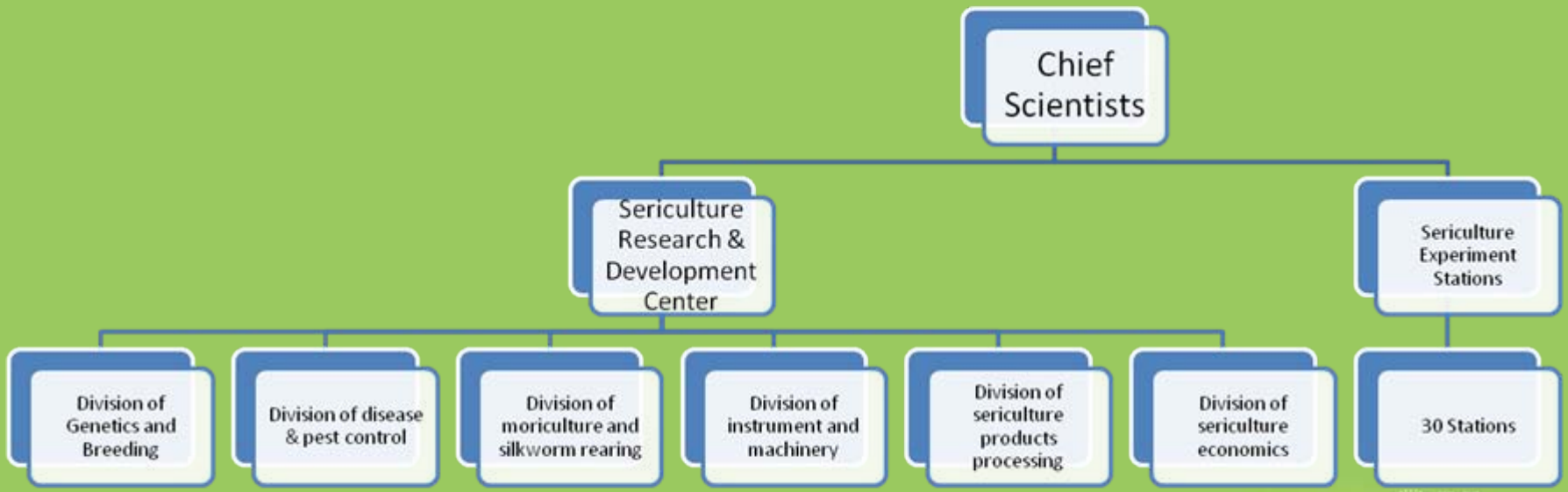
# 2.4 China Sericulture Research System

## China Agriculture Research System

| Rice | Maize | Wheat | Soybean | Barley |
|---|---|---|---|---|
| Highland barley | Sorghum | Millet | Broom corn millet | Oat |
| Buckwheat | Pea | Potato | Sweet potato | Cassava |
| Rapeseed oil | Peanut | Sesame | Sunflower | Flax |
| Cotton | Bast fiber crops | Sugarcane | Sugarbeet | Sericulture |
| Tea | Mushroom | Vegetables | Watermelon & muskmelon | Citrus |
| Apple | Pear | Grape | Peach | Banana |
| Leechee & longan | Natural rubber | Forage grass | Pig | Dairy cow |
| Beef & Yak | Mutton sheep | Fluff with sheep | Legehenne | Broiler |
| Waterfowl | Fish And Shrimp | Shellfish | Tilapia | Pleuronectidae |



# 2.4 China Sericulture Research System




# 2.4 China Sericulture Research System

- Chief Scientist, Sericulture Research & Development Center, Southwest University
  - Adiministrative Office (located in SRICAAS)
  - Division of Genetics and Breeding
    - Scientist in field of Germplasm resources
    - Scientist in field of Core collection
    - Scientist in field of Molecular breeding
    - Scientist in field of Silkworm breeding
    - Scientist in field of Mulberry breeding
    - Scientist in field of Mulberry breeding at sub-tropic area
    - Scientist in field of Silkworm breeding
    - Scientist in field of Silkworm seed production

# 2.4 China Sericulture Research System

- Chief Scientist, Sericulture Research & Development Center, Southwest University
  - Division of disease & pest control
    - Scientist in field of Mulberry disease & pest control
    - Scientist in field of Silkworm disease control
    - Scientist in field of Silkworm medicine
    - Scientist in field of Silkworm disease control in southwest area
    - Scientist in field of Silkworm disease control in sub-tropic area

# 2.4 China Sericulture Research System

- Chief Scientist, Sericulture Research & Development Center, Southwest University
  - Division of moriculture and silkworm rearing
    - Scientist in field of of Tussah silkworm rearing
    - Scientist in field of Silkworm artificial diet
    - Scientist in field of Silkworm rearing environment
    - Scientist in field of Mulberry cultivation in Central and west areas
    - Scientist in field of Silkworm physiology and ecology
    - Scientist in field of Mulberry physiology and cultivation
    - Scientist in field of Mulberry soil & fertilizers
    - Scientist in field of Sericulture Technology Integration

# 2.4 China Sericulture Research System

- Chief Scientist, Sericulture Research & Development Center, Southwest University
  - Division of instrument and machinery
    - Scientist in field of Sericulture instrument and machinery
    - Cocoon collection and processing instrument
  - Division of sericulture products processing
    - Scientist in field of Silkworm resource processing
    - Scientist in field of Mulberry resource processing
    - Scientist in field of Cocoon processing
    - Scientist in field of Silk processing
    - Scientist in field of Tussah silkworm resource processing
  - Division of sericulture economics

# Thank You Grazie

Silk Road (Olympic Game 2008)