Yields of the bast fibre crops (kenaf, ramie, jute, flax) in China
Outline

- Production of bast fiber crops in China
- Institutes/Universities involved in bast fiber research
- China Agricultural Research System of Bast and Leaf Fiber Crops
Production of Bast Fiber Crops in China
(Data from Ministry of Agriculture, 2011)

<table>
<thead>
<tr>
<th>Planting Area (×10,000 ha)</th>
<th>Total Yields (×10,000 tons)</th>
<th>Productivity (ton/ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramie</td>
<td>8.40</td>
<td>1.89</td>
</tr>
<tr>
<td>Flax</td>
<td>3.94</td>
<td>7.52</td>
</tr>
<tr>
<td>Kenaf/Jute</td>
<td>6.47</td>
<td>3.90</td>
</tr>
<tr>
<td>Hemp</td>
<td>2.77</td>
<td>1.58</td>
</tr>
</tbody>
</table>

- Production area and total yields for Ramie, Flax, Kenaf/Jute, and Hemp are shown in the graph.
- The productivity (ton/ha) is also indicated for each crop.
Distribution of Bast Fiber Crops in China

- **Green**: Ramie
- **Blue**: Flax
- **Red**: Kenaf/Jute
- **Yellow**: Hemp
Institutes/Universities involved in bast fiber research

- 27 Institutes/Universities, about 235 researchers
- Institute of Bast Fiber Crops, Chinese Academy of Agricultural Sciences (IBFC, CAAS)
- Huzhong Agricultural University
- Fujian Agriculture and Forestry University
- Hunan Agricultural University
Institutes/Universities involved in bast fiber research (Cont.)

- Guangxi University
- Institute of Economic Crops, Heilongjiang Academy of Agricultural Sciences,
- Institute of Economic Crops, Heilongjiang Academy of Agricultural Sciences,
- Dazhou Agricultural Research Institute of Sichuan Province
Outline of IBFC

- Founded in 1958 as a unique national institute specialized in R&D on bast fiber crops and products;

- 196 staffs, of which 138 are scientific researchers.
Office and laboratory building of IBFC
Research Fields

- Germplasm
- Genetics & Breeding
- Cultivation
- Plant disease and pests prevention and control
- Microbiological Engineering For Bast Plants
- Standards & Testing Methods for Quality of Products of Bast Plants
The system was approved by both Ministry of Agriculture and Ministry of Finance of China in 2008.

The system was consisted of one research center, six research divisions and 20 experimental stations.

The Chief Scientist is Prof. Xiong Heping
CARS-BLFC

- Research Fund/per year:
- Chief Scientist: 300,000RMB (Administrative fee)
- Scientist for special post: 700,000RMB
- Experimental Station: 500,000RMB
Research Divisions of CARS-BLFC

- Breeding Research Division
  - 8 scientists
- Cultivation Research Division
  - 8 scientists
- Disease & Insect Pests Prevention & Control Research Division
  - 4 scientists
- Agro-Facilities Research Division
  - 3 scientists
- Processing Research Division
  - 3 scientists
- Industrial Economics Research Division
  - 1 scientist
Distribution of CARS-BLFC
Research progress of CARS-BLFC

Breeding Research Division

The Germplasm Collections of Bast Fiber Crops in China

- Ramie: 5,394
- kenaf: 334
- Jute: 271
- Flax: 1,819
- Hemp: 870
- Piemarker: 1,946
- Sisal: 2,046
- Kendyr: 1,819
Breeding Research Division

- National Ramie Germplasm Nursery

Ramie new variety “Zhong Zhu No.1”
- Zhong Yama No.1
- Zhong Zahong No.318
Cultivation Research Division

Ramie Cultivation
Water & Soil Conservation Research
Flax armyworm

Hemp leaf beetle
Hemp Acrida chinensis

Hemp tussock moth
Agro-Facilities Research Division

- Mulching Film from Bast Fibers
Processing Research Division

- Bio-retting/degumming
Biomass Energy (Bio-fuel ethanol made from bast fibers)
Substrate made from ramie byproducts

Substrate Packing

Substrate sterilization

Inoculation

Inoculation

Inoculation

Cultivation

Cultivation

Cultivation

Inoculation

Substrate from ramie byproducts for mushroom cultivation
Industrial Economics Research Division

- Study on the economic benefits of multi-purpose use of bast fiber crops.
Thanks for your attention.