Agricultural Machinery Industry in China

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★ Status of Agricultural Machinery Industry

★ Development Trend of Agricultural Machinery Industry
Status of Agricultural Machinery Industry

- Fast development of Chinese Agricultural Machinery Industry
- Service object of agricultural machinery covers the whole agricultural field
- Integrate system of agricultural machinery manufacturing has been established
- Entered international market, export has been strongly increasing
- Problems existed in agricultural machinery industry in China
Status of Agricultural Machinery Industry

Fast development of Chinese Agricultural Machinery Industry

Since 2002, the annual growth rate of total output value of agricultural machinery and sales income exceeded 20 percent. Total output value will be over 130 billion RMB Yuan in 2006.
Status of Agricultural Machinery Industry

Fast development of Chinese Agricultural Machinery Industry

The output of tractors of large and medium horsepower in 2005 was 3.6 times of that in 2002. It will be about 200 thousand sets in 2006.
Status of Agricultural Machinery Industry

Fast development of Chinese Agricultural Machinery Industry

The output of self-propelled combines was 3 times of that in 2002. It will be about 90 thousand sets in 2006.
Status of Agricultural Machinery Industry

- Fast development of Chinese Agricultural Machinery Industry

- Main reasons of development
  - Government policies
  - Socialization of agricultural machinery operation
  - Adjustment of agricultural structure
Fast development of Chinese Agricultural Machinery Industry

Main reasons of development

Government policies

Chinese government has attached great importance to agriculture, rural areas and farmers, made a series of policies that favorite to the farmers, added the financial subsidy to the agriculture, especially constituted the subsidy policies for the farmers on their agricultural machinery purchasing (see the table, Unit: Million RMB)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central government</td>
<td>70</td>
<td>300</td>
<td>600</td>
</tr>
<tr>
<td>Local Government</td>
<td>410</td>
<td>800</td>
<td>1006</td>
</tr>
</tbody>
</table>
Fast development of Chinese Agricultural Machinery Industry

Main reasons of development

- Socialization of agricultural machinery operation

Socialization service of agricultural machinery developed very fast in China. At present, there are 33 million specialized households of agricultural machinery and more than 40 million people engaged in it with the annual operation income of RMB 234.9 billion Yuan in 2005.
Fast development of Chinese Agricultural Machinery Industry

Main reasons of development

• Adjustment of agricultural structure

The adjustment of industrial structure of agriculture is on the way from giving priority to grain production to overall development of farming, forestry, sideline production and fishery, from traditional agricultural production to agricultural industrialization.
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Status of Agricultural Machinery Industry

- Service object of agricultural machinery covers the whole agricultural field
  - The service object of agricultural machinery includes agriculture, forestry, animal husbandry, sideline production and fishery.
  - At present, Chinese enterprises can manufacture 3,000 kinds of agricultural machinery under 95-small-type and 14-big-category.
Status of Agricultural Machinery Industry

- Service object of agricultural machinery covers the whole agricultural field

The output of main agricultural machinery in China in 2005 and in 2006(Jan.-Jun.) are as followings (see Table):

<table>
<thead>
<tr>
<th>Name of Products</th>
<th>Unit</th>
<th>2005</th>
<th>2006(Jan.-Jun.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big-mid-size tractor</td>
<td>Set</td>
<td>162,414</td>
<td>116,329</td>
</tr>
<tr>
<td>Small-size tractor</td>
<td>Set</td>
<td>1,746,499</td>
<td>1,011,636</td>
</tr>
<tr>
<td>Diesel engine</td>
<td>10,000Kw</td>
<td>34,795</td>
<td>21,638</td>
</tr>
<tr>
<td>Harvesting machinery</td>
<td>Set</td>
<td>209,699</td>
<td>206,382</td>
</tr>
<tr>
<td>Farm transportation machinery</td>
<td>Set</td>
<td>1,757,076</td>
<td>952,146</td>
</tr>
<tr>
<td>Grain processing machinery</td>
<td>Set</td>
<td>960,754</td>
<td>702,076</td>
</tr>
<tr>
<td>Feed processing machinery</td>
<td>Set</td>
<td>129,874</td>
<td>83,624</td>
</tr>
<tr>
<td>Pump</td>
<td>set</td>
<td>29,043,401</td>
<td>17,219,601</td>
</tr>
</tbody>
</table>
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Status of Agricultural Machinery Industry

- Integrate system of agricultural machinery manufacturing has been established
  - R & D system
  - Agricultural machinery industrial chain
  - Quality inspection and supervision system
  - Sale service system
Status of Agricultural Machinery Industry

- Integrate system of agricultural machinery manufacturing has been established
  - R & D system
  - Integrates enterprises, scientific research institutes and universities. Technology centers of the enterprises gradually became the main bodies of the new products development.
  - Over 20 research academies and institutes
  - Specialties and research institutes in relevant universities
Status of Agricultural Machinery Industry

- Integrate system of agricultural machinery manufacturing has been established

- Agricultural machinery industrial chain

There are about 8000 agricultural machinery manufacturers in China. Among them, 1578 scale enterprises including 1178 private enterprises, 252 state-owned or state-owned holding enterprises, 148 three kinds of foreign invested enterprises in 2005.
Status of Agricultural Machinery Industry

Integrate system of agricultural machinery manufacturing has been established

Agricultural machinery industrial chain (2005)

<table>
<thead>
<tr>
<th>Name</th>
<th>Economic indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises</td>
<td>1578</td>
</tr>
<tr>
<td>Gross output value of industry(100 million Yuan)</td>
<td>1083.22</td>
</tr>
<tr>
<td>Total assets(100 million Yuan)</td>
<td>691.30</td>
</tr>
<tr>
<td>Total profits(100 million Yuan)</td>
<td>41.13</td>
</tr>
<tr>
<td>Employees(10 thousand)</td>
<td>35.46</td>
</tr>
</tbody>
</table>
Status of Agricultural Machinery Industry

- Integrate system of agricultural machinery manufacturing has been established
- Quality inspection and supervision system
  - Each enterprise has quality inspection department to guarantee the quality of their finished products
  - 12 national level quality inspection and testing centers
  - 20 prefecture-level agricultural machinery authentication organizations
Status of Agricultural Machinery Industry

- Integrate system of agricultural machinery manufacturing has been established
  - **Sale service system**
  - sale services network of manufacturing enterprises has been gradually completed
  - agricultural machinery sales agents that are mainly private companies located all over China
  - near 20 large agricultural machinery markets, and about 100 medium and small sized ones
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Status of Agricultural Machinery Industry

- Entered international market, export has been strongly increasing

  - Import & export situation
  - Main exported products
  - Main exported countries and regions
Status of Agricultural Machinery Industry

- Entered international market, export has been strongly increasing

- Import & export situation

**Fig. 1-4** Import & export of agricultural equipment (include diesel engines and water pumps)
Status of Agricultural Machinery Industry

- Entered international market, export has been strongly increasing
- Import & export situation

Fig. 1—5 Import & export of agricultural equipment (exclude diesel engines and water pumps)
Status of Agricultural Machinery Industry

- Entered international market, export has been strongly increasing
- Main exported products

<table>
<thead>
<tr>
<th>Products</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>All kinds of agricultural irrigation machinery and the spare parts</td>
<td>25</td>
</tr>
<tr>
<td>All kinds of medium and small horsepower diesel engines and the spare parts</td>
<td>21</td>
</tr>
<tr>
<td>Diesel engine generator units and the spare parts</td>
<td>16</td>
</tr>
<tr>
<td>All kinds of tractors and the spare parts</td>
<td>10</td>
</tr>
<tr>
<td>Small gasoline engines and the spare parts</td>
<td>10</td>
</tr>
<tr>
<td>Harvesting machinery and the spare parts</td>
<td>6</td>
</tr>
<tr>
<td>Farm vehicles and agricultural trailers</td>
<td>4</td>
</tr>
</tbody>
</table>
Status of Agricultural Machinery Industry

- Entered international market, export has been strongly increasing

- Exported countries and regions
- The exported countries and regions are over 191
- The first 8 export countries in 2005 were USA, United Arab Emirates, Japan, Indonesia, Vietnam, Germany, Nigeria and Italy

<table>
<thead>
<tr>
<th>region</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>44.0</td>
</tr>
<tr>
<td>North American and Europe</td>
<td>39.2</td>
</tr>
<tr>
<td>African</td>
<td>10.0</td>
</tr>
<tr>
<td>Other region</td>
<td>6.8</td>
</tr>
</tbody>
</table>
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Status of Agricultural Machinery Industry

- Problems existed in agricultural machinery industry in China
  - Main products are small-size with mid-low-grade ones
  - Processing equipment is obsolete, manufacturing quality is not high and production efficiency is low.
  - Industry structure is loose, in disorder and the scale of the enterprises are small with low level of concentration production.
Agricultural Machinery Industry in China

★ Status of Agricultural Machinery Industry

★ Development Trend of Agricultural Machinery Industry
Development Trend of Agricultural Machinery Industry

- Facing new historic opportunity
- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
- Core competitiveness of enterprises will be raised, industry will upgrade gradually
- Industry organization structure will be optimized and reasonable pattern will be formed
Development Trend of Agricultural Machinery Industry

Facing new historic opportunity

- China entered the developing stage of industry is promoting agriculture and urban is driving rural areas. it made bright future for agricultural machinery market and laid a foundation for agricultural machinery industry development.
Development Trend of Agricultural Machinery Industry

Facing new historic opportunity
- As the agricultural industry restructuring has been moving forward, farmers income has been increasing, socialization service of agricultural machinery operation has been broadening; it made bright future for agricultural machinery market and laid a foundation for agricultural machinery industry development.
Development Trend of Agricultural Machinery Industry

Facing new historic opportunity
- Investment system that takes farmer households as the principal part, integrates functions of market and government brought power for the development of agricultural machinery industry.
Development Trend of Agricultural Machinery Industry

- Facing new historic opportunity
- The development of modern technology provided support for upgrading the technological level of agricultural machinery industry.
Development Trend of Agricultural Machinery Industry

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- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
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Development Trend of Agricultural Machinery Industry

- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
  - Priority development technologies and equipments
  - Major developing products
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Development Trend of Agricultural Machinery Industry

- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
- Priority development technologies and equipments:
  - the technologies and equipments that guarantee grain and cotton safety and efficiency
  - the technologies and equipments that guarantee the sustainable development of agriculture
  - the technologies and equipments that need for promoting agricultural restructuring
Development Trend of Agricultural Machinery Industry

- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
  - Priority development technologies and equipments:
    - the complete technologies and equipments that upgrade safety production of agricultural products and food
    - the technologies and equipments of agricultural machinery automation, information and intelligence
Development Trend of Agricultural Machinery Industry

- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
- Priority development technologies and equipments
- Major developing products
Development Trend of Agricultural Machinery Industry

- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
- Major developing products:
  - 130~200 horsepower tractors and the equipped implements.
  - Multi-functioned general combines with high efficiency.
  - Corn combine.
  - Combine for fiber crops.
  - Combine for energy and fodder crops.
  - Large-sized self-propelled sprinklers.
Development Trend of Agricultural Machinery Industry

- Facing new historic opportunity
- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
- Core competitiveness of enterprises will be raised, industry will upgrade gradually
- Industry organization structure will be optimized and reasonable pattern will be formed
Development Trend of Agricultural Machinery Industry

- Core competitiveness of enterprises will be raised, industry will upgrade gradually
  - Key technologies will be broken through and core technologies will be formed
  - Use present manufacturing technologies to transform the tradition ones so as to realize modernization and information of manufacturing
  - Ceaselessly innovate management system and mechanism so as to enhance the vitality of enterprises.
Development Trend of Agricultural Machinery Industry

- Facing new historic opportunity
- Agricultural machinery will develop into large size, high efficient, whole sets and intelligent products
- Core competitiveness of enterprises will be raised, industry will upgrade gradually
- Industry organization structure will be optimized and reasonable pattern will be formed
Development Trend of Agricultural Machinery Industry

- Industry organization structure will be optimized and reasonable pattern will be formed
  - 3-5 large enterprises with sales income exceeded RMB 10 billion will be appeared to lead the development of the whole industry
  - A large group of medium and small enterprises with the characteristics of “profession, precision and specialty” will be formed and become the principal part of the industry
  - Capital structure will be more reasonable; the proportion of three kinds of foreign-invested enterprises and private enterprises will be enlarged.
Thank You