Human Resource Development in the Process of Agriculture Mechanization

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Content

- Importance of Human Resource in Agriculture Mechanization
- Challenge in China
- Thoughts from Zoomlion
- Solution from Zoomlion
Importance of Human Resource in Agriculture Mechanization

- Requirement from modern agriculture
  - Private
  - Agriculture projects
- Higher output and profit
- Farmer becomes a “profession” ——Skills and knowledge
Importance of Human Resource in Agriculture Mechanization

- Human resource definition
  - Management expert
  - Mechanization expert
  - Service provider
- Demand of **Mechanization Expert** to create more value on agriculture production
  - Operation
  - Maintenance
  - Management
  - improvement

**AGRICULTURE POPULATION**
Nearly 35% or 693 Million people

- People Engaged in Agriculture
Challenge in China

- **More region:** Large farm caused by land consolidation trend
- **More machinery:** Increasing 61% mechanization rate, with 1.8 M population in Agriculture Machinery.
- **More complicated:** Higher horse power, Multi-function and Specified purpose machinery

![MECHANIZATION EXPERT IN CHINA (MILLION )](image_url)
Challenge in China

- Increasing Cross-Region Machinery Operation Activities since 1990s
  - 168,000 machinery service-providing organization,
  - 42,000 are cooperatives with more than 20% increasing rate,
  - Case in 2013, 500,000 combine for wheat harvesting, 300,000 are operated in a cross-region manner.
  - 2013, more than 36 Million Ha supported by cross-region machinery operation
Thoughts from Zoomlion

- **Re-definition of Farmer**: to direct the target
- **Change of the Training System**: Comprehensive Education, instead of temporary training
- **Multi-source of education**: bring experienced farmer, manufacturer, university professor, cooperatives and agriculture enterprise to the education system
- **Certified knowledge and skills system**: enable “Farmer” as a standard profession and occupation
Solution from Zoomlion

PRODUCT RANGES
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest soil preparation</td>
<td>Excavator, bulldozer, grader, rollers, loaders and other earth-moving equipment is complete</td>
</tr>
<tr>
<td>Cultivation</td>
<td>12-210 horsepower tractor, covering meshing sets, synchronizer, power shift, and other technology platform</td>
</tr>
<tr>
<td>Irrigation</td>
<td>Provide a variety of equipment for irrigation network construction, realize full coverage of the various terrain and the planting of crops and agronomic requirements</td>
</tr>
<tr>
<td>Field management</td>
<td>Meet the row, spreader, spray insecticide, etc all kinds of field management requirements</td>
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<tr>
<td>Planting</td>
<td>Complete product series, meet rice, wheat, corn, sugar cane, cassava, etc growing demand</td>
</tr>
<tr>
<td>Harvest</td>
<td>“GUWANG” wheat harvester, rice harvester, with its superior performance, sales ranked top three in China</td>
</tr>
<tr>
<td>Drying</td>
<td>Circulation at low temperature, high temperature continuous and mobile dryer, meet the rice, corn, soybeans, wheat and other crops drying requirements</td>
</tr>
<tr>
<td>Warehousing and shallow processing</td>
<td>Meet the demand of grain post-harvest storage and raw processing</td>
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Solution from Zoomlion

- Under the guidance of Ministry of Agriculture, Ministry of Education, Zoomlion, with more than 110 members, established China Modern Agricultural Equipment Vocational Education Group.
Solution from Zoomlion

- Member: more than 110 entities, including Manufacturer, research institute, professional colleague, etc.
- Plan
  - Network of bases for technical training center
  - Universal certificate and training system
  - Information commutation system
  - Online technical consulting service platform
Solution from Zoomlion

- Target farmer character:
  - Professional
  - Technical
  - Knowledgeable
  - Management
  - Passionate

- The “GROUP” also has the division for “international cooperation and communication”
  - to conduct the cooperation with other country
  - Expand the model to overseas
Solution from Zoomlion

National Agriculture Machinery Skills Competition

Organized by
Mechanization Division, Ministry of Agriculture
Zoomlion Heavy Machinery
Solution from Zoomlion

- More than 2000 participants nationwide, 76 in the finals
- Technician, operator, head of cooperatives, farm owner, etc
- Details:
  - Theory test
  - Practice test
  - Divided by tractor, combine harvester and other machinery
  - Maintenance, operation and spray parts replacement
Solution from Zoomlion

- Discover the current system and make improvement
- Encourage more farmers to engage in education
- Establish the universal agriculture mechanization expertise certificate system
Thank you