

RESEARCH REPORT FROM CHINA

1. General information concerning all machines being used in every country

1.1. Key machinery for the China Agriculture, 2010.

Focus Area	Number in use (amount)	Source of data	Average Age (years)	Source of data
Agricultural Tractors *	The total amount of tractors is 21.7796 million, where power above 14.7 kW is 3.9217million; power below 14.7 kW is 17.8579 million.	Department of Agricultural Mechanization Management, MOA	10	estimate
Paddy Threshers	The total amount of paddy threshers is 10.168 million.	Department of Agricultural Mechanization Management, MOA	12	estimate
Hand Tools	Without hand tools in china now	/	/	/
Knapsack Sprayers	The total amount of motor sprayers is 4.6144 million.	Department of Agricultural Mechanization Management, MOA	6	estimate
Mechanical Harvesters	The amount of rice and wheat harvesters is 862.4 thousand, corn harvesters is 129.7 thousand, reapers is 498.5 thousand, other mechanical harvesters (e.g. bean, peanut, cotton, potato etc)is 1.0129million.	Department of Agricultural Mechanization Management, MOA	5	estimate
Post-Harvest Machinery	The amount of paddy dried machines is 37.6 thousand, seeds processing machines is 26.1 thousand, fresh-keeping and storing machines is 40.4 thousand.	Department of Agricultural Mechanization Management, MOA	7	estimate
Other machines	/	/	/	/
Total machines	By the end of 2010, the general power of agricultural machinery is 927.8 million kW.	Department of Agricultural Mechanization Management, MOA	/	/

Addendum for:

- Tractors** - almost all agricultural tractors are used in the field and the total power of tractors is 284.45 million kW at the average power ~13kW; they have being subsidized for 9 years;
- Paddy Threshers** – subsidy on the common rules;
- Hand Tools** - in China hand tool is not available;
- Knapsack Sprayers** -there is not any subsidy to knapsack sprayer for farmers now;
- Mechanical Harvesters** -have being subsidized for 9 years;
- Post harvest Machines** - subsidy on the common rules;
- **Other machines** - subsidy didn't specify.

Total power of the agricultural machinery engaged in Agriculture (except the tractors ~284,45 mln. kW) is about 643,35 mln.kW – combine harvesters, motorized machines, electrical drive, heating equipments and so on.

2. Information related to the use of agricultural machinery.

2.1. Accidents caused by agricultural machinery:

The amount of accidents caused by agricultural machinery was 933 cases in China in 2011, totally 171 persons were dead and 473 were injured, the direct economy cost is 1.26 million US dollars. Where the amount of accidents caused by tractor was 480 cases, 125 dead and 276 injured, the amount of accidents caused by combine harvester was 345 cases, 23 dead and 142 injured, the amount of accidents caused by other agricultural machinery was 108 cases, 23 dead and injured 55.

Source of data: Ministry of Agriculture, People's Republic of China.

2.2. Existence of any subsidy system for farmers:

Chinese government began to subsidize farmers who purchased tractors and combine harvesters since 2004 in order to prompt agricultural mechanization and have being subsidized for 9 years. In 2010, 2011 and 2012, Chinese government invested 2.4 billion U.S. dollars, 2.7 billion U.S. dollars and 3 billion U.S. dollars respectively to subsidize farmers who bought agricultural machinery. At present the agricultural machinery subsidy rate is about 30% of the price (the farmer pay 70%, the rest 30% will be paid by the government).

Firstly, the agricultural machinery will be tested by the test station, only when the agricultural machinery has passed the test - they can be subsidized; the agricultural machinery is tested via national system and national standards. Test station plays a very important role for the quality of subsidized agricultural machinery.

Secondly, the Ministry of Agriculture established a subsidized list of agricultural machinery; the test passed machines can enter the list. Agricultural machinery is a very wide concept, it contains many categories, e.g. tractor, harvester, rice planter, sprayer, etc., Chinese government doesn't subsidize all kinds of agricultural machinery, the government decide the category of agricultural machinery which will be subsidized according to the development situation of agricultural mechanization, and the subsidized list will be adjusted every year.

Thirdly, the farmers will get subsidy when they buy agricultural machinery which is in the subsidized list, they only pay 70% of the price to the agencies, and the government will pay the rest 30% price to the manufacture.

2.3. Existence of testing procedures used in every country:

-Step 1, the tractor manufacture applies for test to the test station; the manufacture also provides necessary documents to the test station according to the government's requirements at the same time;

-Step 2, the test station check all documents and decide the test can be carried out or not, if not, the test station will tell the reasons to the manufacture;

-Step 3, the test station chooses the tractor sample in manufacture's store-shop;

-Step 4, the test station carries out test according to the national standards;

-Step 5, the test station evaluates and checks the test result conformity with the national standards or not;

-Step 6, the test station deliveries certificate to tractor which passed the test.

2.4. Collection of proposals:

Training the drivers and improving their ability of driving and maintenance; maintenance in time under the instruction of operation manual; use proper coolant, fuel, oil, lubricant recommended in operation manual; use high quality & proper accessories.

It is necessary to start with tractors which are used in every country, they play a very important role in the field of agricultural production, UNAPCAEM should start from tractor if establish ANTAM, in this aspect, OECD and ENTAM give us a very good example, we can learn much from them, UNAPCAEM should build ANTAM from one agricultural machinery to others, from simple item to complex: to start with the several machines it is not the best choice due to the lack of sufficient human and financial resource.