

SAFETY INSPECTION AND PERFORMANCE TEST OF FARM MACHINERY

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1

BACKGROUND

WHY MACHINES ARE BRAKING DOWN?

WHY MACHINES ARE NOT PERFORMING WELL?

- 1. Poorly mede machines are in the market**
- 2. No regulations to exclude poor machines**
- 3. Macinery selection is not properly done**
- 4. Limited type of machines are available**
- 5. Misuse of machinery by operator**
- 6. Operators are not skillful**



2

ISSUES

HOW CAN WE HAVE GOOD PERFORMANCE MACHINES?
GOODWILL OF MANUFACTURERS EYES OF USERS?

1. International standard for tractor performance
2. Government inspection
3. Institution for testing agricultural machinery
4. Standard test code



3

JAPANESE EXPERIENCE

Policy

1. **Agriculture Organic Law(1961)**
 1. Agricultural production
 2. Price and market control
 3. Agricultural structure adjustment
 4. Agricultural administration and concerned organizations
- Organic Law on Food, Agriculture and Rural District (1999)
2. **High Performance Agricultural Mechanization Promotion Act (1962)**
 1. Research and development
 2. Finance
 3. Type inspection
 4. Instruction to local government
 5. Penalty against violation
3. **Land Improvement Act**
 1. Improvement, development, conservation, and consolidation of agricultural land
 2. Establishment of land improvement district (LID)
 3. Subsidies to LID



4

INSTITUTE OF AGRICULTURAL MACHINERY (SINCE 1962)

Specialised institute for research, development and improvement of agricultural machinery, and for type certification and safety appraisal

1. Type certification (10 types)

1. Performance
2. Structure
3. Durability
4. Manipulatability
5. Safety inspection

2. Safety appraisal (31 types)

1. Protection device
 2. Protection structure
- 3. OECD test code**



5

JAPAN AGRICULTURAL MECHANIZATION ASSOCIATION SINCE 1957

Purpose: Contribution to sound agricultural development through improving farm management by agricultural mechanization

**Members: Federation of agricultural cooperative association
Agricultural machinery manufacturers**

1. Instruction to introduce and disseminate superior agricultural equipment and facilities
2. Promotion of safety measures to avoid farm accidents
3. Database of new agricultural machinery
4. Price information of secondhand machinery
5. Promotion of agricultural machinery rental service
6. International technical cooperation

6

AGRICULTURAL MACHINERY BANK

A system to improve operating ratio by matching farm operation service provider with high performance machinery and farmers

1. Started with 8 banks in 1972, more than 700 in 1988
2. Over 400 providers and average service area is about 500ha
3. Major service providers are agricultural cooperatives to provide services to members



7

JAPAN FARM MACHINERY MANUFACTURER'S ASSOCIATION

Purpose: Contributing to sound development of agriculture, through promotion of farm machinery by streamlining agricultural machinery industry

1. Lobbying promotion of agricultural mechanization
2. Supporting machinery development and standardization
3. Standardization of parts
4. Promotion of model inspection and safety appraisal
5. Improvement of maintenance services and promotion of rationalized distribution of farm machines and spareparts
6. Promotion of external trade through study on foreign markets and technical cooperation in developing countries
7. Study on safety and environmental issues

8

OFFICIAL CERTIFICATION FOR AGRICULTURAL MACHINERY

1. Certified agricultural machinery operator
2. Certified agricultural machinery instructor
3. Certified agricultural machinery technician (1st and 2nd grade)

Forum for Certified Agricultural Machinery Operator

Plowing contest

Seminar and training on farm safety



9

REGIONAL NETWORK FOR AGRICULTURAL MACHINERY, RNAM (1977)

ESCAP (UN Economic and Social Commission for Asia and Pacific)

Participating countries: Initially India, Indonesia, the Islamic Republic of Iran, Pakistan, the Philippines, the Republic of Korea, Sri Lanka and Thailand. Bangladesh and Nepal in 1987, China in 1990 and Viet Nam in 1994.

Supporting countries: The Governments of Japan, Australia, Belgium, the Netherlands, the Republic of Korea, and UNIDO

Development of infrastructural mechanism for agricultural mechanization, human resources development assistance in exchange of information, design, prototype of tested machines for commercialization and establishment of joint ventures.

Now: Regional Network for Agricultural Engineering and Machinery

10