Paddy Threshers

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Type of Machines

- Small capacity engine driven thresher
- Medium capacity two wheel tractor powered thresher
- High capacity combine thresher powered by either four wheel tractor PTO or separate engine
Population and use

- **Low capacity machines** - Small scale farmers specially in mountainous areas

- **Medium Scale machines** - Specially farmers having less than 0.25 ha.

- **High capacity combine threshers** - Large scale cultivation areas having more than 0.5 ha holding size
Accidents from different farm machinery
Mode of damages

- Environmental damage
- Grain damage
- Human damage
- Machine damage
Environmental damage

- Pollution (Dust, pollution of drinking water)
- Sound (Sometimes more than 95 dbA continuously)
Grain damage

• Quantitative
  - Un-threshed losses (Unrecoverable)
  - Separation losses (Unrecoverable)
  - Shattering losses (Partly recoverable)

• Qualitative
  - Cracked grains
  - Milled (de-husk) grains
  - Tailed grains
  - Grain with pedicels

Total losses sometimes reach up to 20%
Human damage

• Injuries (Temporary damages)
  – Finger and hand damages
• Long term permanent damages
  – Back pain, loss of sense of fingers, hearing loss etc
• Loss of lives
  - Many accidents caused entangling with the unprotected PTO shafts.
Machine damage

• Poor manufacturing quality
• Poor material quality
• Wrong designs

Because of the unreliable machines, unnecessary delay in harvesting
Testing & Evaluation Procedure

• National Testing Centres are responsible
• Use former RNAM test codes with slight modifications, adapted to local situation
• Testing and certification still is not mandatory
• However a draft Farm Machinery Act (Sri Lanka) is being prepared including T & E a mandatory requirement
General Contents in Testing Procedure

- General Performance Test (Capacity, Losses etc)
- Composition of the grain mixture at the main grain outlet
- Safety
- Durability
Future trend

• Use of threshers is slowly diminishing and combine harvesters are catching up the market.

• Is it necessary to concentrate on threshers?