Lack of Dryer and Post-Harvest Technology Limited Farmer Corn Acceptance by Indonesian Feed Industry

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- Problem of
  - Indonesian Feed Industry
  - Local corn problem
  - Characteristic of corn farmer
  - Available dryer
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BACKGROUND
Indonesian feed industry attacked by increasing global corn price

- Increasing Demand of corn
- Global climate change
- Corn price double
- Increasing Demand of corn
- Depress Indonesian feed industry
Driven in the competition between feed, food and fuel

- Energy security concerns
- Global warming concerns
- Depletion of grain stocks
- Increased global energy demand and rising fuel cost
- The high cost of alternative energy
Depletion of grain stock

...and rising exports to satisfy global demands for more protein-rich diets

...have led to dangerously low ending inventory levels, and thus, higher grain prices.
Driven in the competition between feed, food and fuel

- Energy security concerns
- Global warming concerns
- Depletion of grain stocks
- Increased global energy demand and rising fuel cost
- The high cost of alternative energy
Effect of energy supplies on the feed industry

- War on addiction oil
- War on feed industry
- Feed demand increase exponentially
- Climate change problem
- Where the extra grain going to come from?
- Corn producer convert corn into automotive fuel
PROBLEMS
1. Indonesian feed industry

- 55% of the feed ingredient is come from corn
- National corn production 2006: 11.6 mio ton (for food)
- Import: 6.45 mio ton (mostly for feed)
Increasing feed cost

Effect of increasing global corn price to Indonesian feed industry

Decreasing purchasing power

Increasing meat price

Beat broiler grower

........................... Increasing national corn production
2. Local corn production

- Seasonal availability: 2 – 3 times harvest/year
- Fluctuation in quality: spoilage, vary in moisture and nutrient content
- Humid area: temperature 25 – 33°C, RH 85%, interrupt by rain........... Solar drying unfeasible
2. Local corn production

- Lack of postharvest technology,
  - manual harvest: extent time and increase contamination
  - Solar drying
  - Storaging
3. Indonesian farmer characteristic

- Low farming scale (< 0.5 ha land; < 2 ton/year corn production)
- Low capital investment
- Lack of technology
- Undistribute properly
4. Available commercial corn dryer

- Unreachable to small farmer
- Operate by dryer company in imbalance profit sharing
- Farmer less motivation to increase corn area
- Less corn available for feed industry

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<tr>
<th>Model</th>
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<th>GN 1092 / box</th>
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<td></td>
<td>cm</td>
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SOLUTION
Solution

- Farming group
- Alternative drying technology
- Industrialization and mechanisation of corn production, investor in java outer island
- Establishment of corn post harvest technology by government or feed industry
Thank you

- Yesterday’s ‘what if’ is today reality and a dilemma for tomorrow
- An incredible challenge: A global effort to feed a hungry world yet provide energy, yet be open to consumer demands

Lyons (2007)
Corn Price

- 1980: $2/bushel
- Beginning of 2006: $2/bushel
- End of 2006: $4/bushel
- Now: 
- Now:
Why corn demand increase?

- Increasing prosperity of populous country
  - China and India

- Increase demand of meat
  - wealth related to meat consumption

- Increasing animal number

- Increasing feed needed
  - Increasing corn requirement
1293 billion barrels of reserves

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<tr>
<td><strong>Oil</strong></td>
<td>• <strong>12 years</strong></td>
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<tr>
<td><strong>Natural gas</strong></td>
<td>• <strong>64 years</strong></td>
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<tr>
<td><strong>Coal</strong></td>
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Renewable energy (14%)

- Wind, 6% of electricity
- Geothermal (niche)
- Only 1% renewable
- 2% Hydro but 60% of potential already harvested
- 11% Biomass wood-burning Huge potential

Huge potential

But 60% of potential already harvested

Only 1% renewable

Wind, 6% of electricity

Geothermal (niche)