Scaling Agricultural Technologies
Global Learning & Evidence Exchange (GLEE)

Commercializing Tropical Hybrid Corn Seed in Asian Markets

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Commercial Hybrid Corn Seed

Asia Market Trends

• Rising population & incomes => more meat, feed, corn, & seed
• Increasing farmer awareness of value from quality seed
• More hybrids offered by more companies; farmers are gaining from the competition
  – Drought tolerance
  – Better grain quality (color, weight, storability)
  – Disease resistance (leaf blight, stalk rot)
  – Lodging resistance
• “Pirate” seed still popular among low-income farmers and in some seasons with more weather risk
• More mechanization as labor costs climb, especially planters and harvest equipment
“Quality Seed for Growing Value”

Our Vision
Be a leader in breeding and commercializing tropical hybrid corn and other field crops for Thailand and other Asian markets

Our business is driven by providing farmer and dealer customers with better access to affordable technology and information to generate more value and better livelihoods.
Seed Asia

• A private company … with a development perspective
  – *Founded 2005; based in Thailand; currently exporting to 7 countries*

• It’s about money *and* impact
  – *For partners, employees, customers, communities & countries*

• Scaling Up = Growth and Survival

• Scaling Up drives change through every Seed Asia department
  – *Sales & Marketing*
  – *Seed Production*
  – *Processing*
  – *QA*
  – *R&D*
  – *Admin & Finance*
Contract Seed Production of F1 Hybrids
Contract Seed Production

Trends and Technology

• Farmers are very savvy and are becoming more technical, but they need support to do things right

• Increasing farmer awareness of value from quality inputs, especially fertilizer, micro-nutrients, and pest control

• More mechanization as labor costs climb, especially planters, irrigation systems, and harvest equipment

• Many improvements still needed:
  – soil testing
  – better quality inputs
  – farmer training
2014 Contract Seed Production

• ~ 1,500 farm families, dry and wet seasons

• Average contracted area: 0.6 hectare per family

• Average value of inputs supplied: $US 900 per family
  - parent seed, fertilizer, pest control from Seed Asia

• Average gross income per crop: $US 3,000+ per family

• Technical and management support:
  – Village group leaders
  – Seed Asia field production team
  – Seed Asia QA inspectors
  – Seed Asia admin staff
Goal: Scaling up seed production to meet market demand

Key Challenges

• Small scale farmers:
  – How to maintain and increase yields while scaling up?

• Tough competition from larger competitors

• No functional Plant Variety Protection system in Thailand
Contract Growers & Average Yield, 2007 to 2014
What We’re Doing

• Moving faster than competitors
• Forging stronger relations with contract growers and communities (more field & QA staff, faster grower payments, more CSR)
• Expanding geographically: more provinces, villages, growers
• Better technology
  – Seed production research (agronomic and economic)
  – Planters
  – Crop inputs based on farmer demand (not just what the company provides)
  – BAAC credit cards
• FarmForce (Syngenta Foundation, cloud-based crop production management system)
• Planning expansion (horizontally) in Myanmar, Indonesia
Conventional Planting
# Planter Technology Impacts

<table>
<thead>
<tr>
<th></th>
<th>Local Plate Planter</th>
<th>Precision Planter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed singulation and plant population</td>
<td>Not accurate</td>
<td>Accurate, adjustable</td>
</tr>
<tr>
<td>Seed depth control</td>
<td>Not accurate</td>
<td>Accurate, adjustable</td>
</tr>
<tr>
<td>Fertilizer depth control</td>
<td>No control</td>
<td>Accurate, adjustable</td>
</tr>
<tr>
<td>Placement of seed and fertilizer</td>
<td>No control</td>
<td>Accurate, adjustable</td>
</tr>
<tr>
<td>Independent row unit suspension</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Plant other crops (beans, sunflower, etc)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yield advantage over local plate planter</td>
<td></td>
<td>30-40%</td>
</tr>
</tbody>
</table>
Lessons Learned

- Learning never stops
- Some of our best lessons come from savvy, small-scale farmers
- It’s mostly about people and relationships
- “Do what you say you’re going to do”
  - Pay farmers quickly and fairly
  - Support them when they fail
  - Stop relations with farmers and villages that cheat
- Scaling up is not as hard as maintaining efficiency and relationships
Lessons Learned

The most important and easiest to forget …

“Success (and scaling up) is a journey, not a destination”
Thank You!

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