Farmers‘ Production Challenges to Meet Export Markets Expectations

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Background Information
Potential in production
Constraints
Challenges to meet export
Conclusion
Background Information
Thailand
Southeast Asia

Average temperature
* day : 30 °C
* night : 20 °C

Annual rainfall
900 - 4000 mm
National Cultivation Area

• Total national area: 51 m.ha
• Agricultural area: 21 m.ha

Fruit & industrial crops: 4.4 m.ha
Vegetables & ornamental: 0.19 m.ha

Source: Office of Agricultural Economic, 2010
Cultivated area of fruit crops (2009-2010)

Source: Office of Agricultural Economic, 2010
Major fruit production
(2009-2010)

(x1000 t)

Source: Office of Agricultural Economic, 2010
Cultivated area of vegetables (2009-2010)

(ha)

Source: Office of Agricultural Economic, 2010
Major vegetables production (2009-2010)

Export and potential fruits & vegetables

**Export crops**
- Mango, Longan, Durian, Lychee, Mangosteen.

**Potential crops**
- Pumello, Papaya, Rose apple, Banana.

**Export crops**
- Chili, Okra, Asparagus

**Potential crops**
- Ginger, Sweet potato
Top ten of principal agriculture export (2010)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Product</th>
<th>Value (m. $US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Rubber &amp; products</td>
<td>8,367</td>
</tr>
<tr>
<td>3rd</td>
<td>Rice &amp; products</td>
<td>3,323</td>
</tr>
<tr>
<td>6th</td>
<td>Fruits &amp; products</td>
<td>1,468</td>
</tr>
<tr>
<td>8th</td>
<td>Sugar &amp; products</td>
<td>1,160</td>
</tr>
<tr>
<td>9th</td>
<td>Cassava &amp; products</td>
<td>1,143</td>
</tr>
<tr>
<td>12th</td>
<td>Veg. &amp; products</td>
<td>686</td>
</tr>
</tbody>
</table>
Great varieties of canned fruit and juice
Potentials in Production
- Diverse source of genetics
- Climates suitable for various tropical and sub-tropical crops
- Farmers of good skills
- New technologies allow all year round production in specific crops
334 tropical fruit sp. found in Thailand

Several promising lines bred regularly
Constraints
Production problems

- Small-scale orchards
- High cost of fertiliser & chemicals
- Relatively low farm-gate prices
Marketing problems

- Quality of produce
- Irregular supply in some crops
- Post harvest handling
- Transportation cost
Challenges:

- Implementation of national food safety program
- Strengthening in controlling quality standards
- Nutritional traits for better produce
Implementation of national food safety program

- National policies
  (In 2003, Thailand defined itself as the World’s Kitchen and addressed the food safety year)

- Support in R & D program

- Revised attention to GMOs utilisation

- Extend implementation to farmer’s co-operative groups
Food Safety Strategies in 2004

- Controlling quality of agricultural input & raw materials
- Encouragement of GAP certification
- Certification of GMP & HACCP certified factories, packing houses, SO₂, fumigated plants, methyl bromide fumigated plants
- Controlling quality of export produces & products
Changes in R&D strategies

- **Year 1960– 2000**
  increasing yield / productivity
- **Year 2000 – 2007**
  minimizing chemical residue
- **Year 2007 onwards**
  increasing nutritional / health
Strengthening in controlling quality standards

- Importers require safe products that can be traced back
- Certificates of chemical residue
- Certificate of Good Practice
- Certificate of GMP & HACCP
MOAC encourages growers to comply with GAP guidelines in FFV production (enforced by DOA)

- **(2003)** 12 kinds of fruit and vegetables to 7 countries are recommended to produce under GAP procedures
- **(2004 – 2008)** 29 kinds of fruit and vegetables are produced under GAP and GMP procedures
- **(2008-2009)** 19 kinds of herbs are produced under GAP procedures
- Inspection and certification of GAP farms
- Inspection and certification of organic farms
- Inspection and certification of GMP packing houses

- Over 120,000 farms
- Over 2,000 farms
- Over 700 plants
One of the governmental policies emphasized on quality control of products before being exported.

Inspection and analysis carried out under the ‘Office of Export Control and Inspection System for Food and Agricultural Products’
Different analysis for quality certification

- Sanitary Certificate
- Mycotoxin Certificate
- Analysis certificate
- Microbiology Certificate
- Mercury Certificate
- Health Certificate
- Cooking Certificate
- Filth Certificate
- Endorsement Certificate
Nutritional traits for better produce

- Breeding program in order to obtain lines with rich in nutrition and vitamin increasingly needed
- Attention also paid on crops that provides different pigments eg. Encouraging
Various phyto-pigments found in crops of 5 different colors

lycopene, anthocyanin

carotenoid, beta –carotene, Vit. A and C

zeaxanthine, thiocyanate, flavonoids

anthocyananin

anthoxanthin, allicin
Conclusions

In order to meet export markets expectations, attention should be paid on

- National plan for Implementation of food safety program
- Strengthening in efficient controlling quality standards required (CODEX, ASEAN)
- R & D programs focusing on nutritional traits for better produce
Making a Difference

Flight Attendant Khalthya Phumpatmat and Air Pursuer Kant Krangchong both enjoy serving passengers on Thai Airlines. Miss Khalthya is seen in this elegant green dress with a beautiful flower on her shoulder.