Fact About Agriculture of Thailand

- Population 65 million
- 5.8 million farms, ~23 million farmers
- Total area = 51.31 million hectares
- 41% are agricultural land (20.85 million hectares)
- Agriculture GDP 31,589 million $ = 11.58% of total GDP
<table>
<thead>
<tr>
<th>Commodities</th>
<th>Production</th>
<th>Export</th>
<th>% Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>21190</td>
<td>10216</td>
<td>48</td>
</tr>
<tr>
<td>Pineapple</td>
<td>1300</td>
<td>721</td>
<td>55</td>
</tr>
<tr>
<td>Longan</td>
<td>477</td>
<td>287</td>
<td>60</td>
</tr>
<tr>
<td>Durian</td>
<td>638</td>
<td>219</td>
<td>34</td>
</tr>
<tr>
<td>Sugar</td>
<td>7820</td>
<td>5012</td>
<td>64</td>
</tr>
<tr>
<td>Cassava</td>
<td>25160</td>
<td>15660</td>
<td>63</td>
</tr>
<tr>
<td>Chicken Meat</td>
<td>1200</td>
<td>383</td>
<td>32</td>
</tr>
<tr>
<td>Shrimp and products</td>
<td>500</td>
<td>358</td>
<td>72</td>
</tr>
</tbody>
</table>
Export Market of Thai Food by Country (%)
Export Market of Thai Food by Country/Region (%)
Food Safety along the Food Chain

• Health hazards can be introduced at any steps, any places, and any times.

• Risk to consumer is a complex and integrated issue. Emerging risks can be occurred every day.

• New strict food safety standards & regulations from both government and private.

• From-Farm-to-Table approach

• International forums : Codex / WTO
Food Control System in Developing Countries

The Balancing between

National Consumer Food safety

and

Food Trade (Export)

* Single policy - Single standard
Single Standard – What does it mean?

• Single standard for both domestic and export food products need not to be only one standard BUT need to ensure that both food products are sufficiently safe

• Single standard for safety but may be multiple standards for quality as quality varies among countries and markets
National Agencies in charge of Food control

- Ministry of Agriculture
  - Production based
  - Food production, mainly primary production (safety + quality)
  - Food trade, mainly export
  - Food security

- Ministry of Health
  - Health based
  - Consumer protection (safety + quality)
  - Some parts of food production related to consumer protection
  - Food import
  - Domestic market including food service
Health : Food Act 1979

- Regulated by Ministry of Public Health (MOPH), Food and Drug Administration (FDA)
  - Food establishments registration
  - Establish regulations on specific foods
  - Control of food sold domestically / Imported foods
  - Control of food labelling + food advertising

* All mandatory
Agriculture : Agricultural standards Act 2008

- Effective 20 August 2008
- The National Committee on Agricultural Standards is a statutory body in charge of policy
- Enforced by the National Bureau of Agricultural Commodity and Food Standards (ACFS), Ministry of Agriculture and Cooperative (MOAC)
Agricultural standards Act 2008

- Agricultural commodity = produce / product originated from agriculture, fishery, livestock or forestry including by-product thereof

- Applied to producer, exporter & importer of agricultural commodities

- Also applied to governmental/private certification bodies (CB) who inspect / certify upon agricultural standards
Agricultural standards Act 2008

2 types of standards

* Mandatory standards:
  - license required for production, export or import
  - require inspection / certification by approved CB

* Voluntary standards:
  - license not required
  - inspection / certification on voluntary basis

* The uses of certification mark for both types of standards are controlled by law
**Mandatory standards : MRA**

When there is MRA between Thailand and exporting countries

**Type I : Equivalence of both standard and inspection / certification**

- accept exporting countries' certificate / certification mark

**Type II : Different standard but equivalence of inspection / certification system**

- accept exporting countries' certificate based on Thai agricultural standards
Ministry of Agriculture and Cooperatives (MOAC)

Mission 2007 – 2011:

1. Research, develop and transfer agricultural technology to farmers

2. Develop infrastructures for agricultural productions

3. Promote food and agricultural commodity standard

4. Promote farmer’s organizations and support farmers for their self-sufficient, good quality of life and stable occupation.
Cabinet on 4 March 2003 announced the year 2004 as a Food safety year and approved “Road Map of Food Safety” to be implemented from 2004.
Road Map of Food safety

I Import RM+Input
- Registration & Inspection of pesticide, fertilizer vet drug, other chemicals
- Border control of RM, foods, feeds

II Farm level
GAP Implementation & Certification

III Food Manufacturing level
GMP/HACCP Implementation & Certification

IV Produce/Product
- Product Registration / Certification & Issue of ‘Q’ Mark
- Product Inspection before export
- Product monitoring

V Market (Domestic/Export)
- Control hygiene of market/retailer
- Consumer communication & Control advertising
- Inspect & Certify product for export
- SPS/Trade negotiation

Traceability

Food safety standards
The Responsibilities of MOAC under Road Map of Food Safety

I.  - Control the imports of agricultural inputs
    - Control the import of raw materials for food production
      (e.g. meats, tuna, shrimp)

II. Farm GAP implementation & certification

III. Control of food manufacturing for export

IV. Control of produce/products for export

V. SPS/Trade/International standards negotiation
STANDARDS FOR FOOD CHAIN

Farm → Industry

Product (Export)
Product (Domestic)

GAP
GMP
HACCP

Product standard (Safety & Quality)
Hygiene of food service
TYPES OF STANDARDS

- Commodity standards e.g. longan, mango, asparagus, rice, chicken meat
- Production standards e.g. GAP, GHP, GMP, Organic Agriculture
- General standards (mainly on food safety) e.g. MRL for pesticides, ML for contaminants, methods of analysis
Good Agricultural Practices
Examples GAP Standards

For crop production

: GAP for Food Crops → general standards for all food crops

: GAP for Longan, Asparagus, Okra, Chili, Thai Hom Mali (Jusmin) Rice, Orchid

For livestock farm

: GAP for Cattle Farm, Bee Farm, Duck Farm, Broiler Farm

For Aquaculture

: GAP for Tilapia (fresh water fish), Shrimp
Good Manufacturing Practices
Examples of GMP Standards:

- General Principles of Food Hygiene
- Slaughter house – General, Poultry, Pig
- Packing house – Fresh Fruits & Vegetables
- Rice mill
- Raw milk collecting center
- Processing of fishery products
- Wood packaging for import/export
Standard Setting

ACFS

Focal Points (Codex, OIE, IPPC)

9 Steps Standard Setting

National Standards

Commodity Std.

Production Std.

General Std.

Products

Consumers

- Farmers
- Processors
- Scientists
- Consumers
ACFS: National standard setting

1. Prioritization of a standard

2. Establishment of Technical Committee
   - all stakeholders including
     * scientists, experts
     * government officers,
     * farmers
     * private sectors

3. Standard drafting
ACFS : National standard setting

4. Draft standard considered by the Technical Committee

5. Public hearing / Requesting comments from all stakeholders

6. Draft standard approved by the National Committee on Agricultural Standards

7. WTO Notification (for mandatory standard)

8. Standard Approval and Notified in the Royal Gazette

9. Standard review and revision (every 5 y)
UTILIZATION OF STANDARDS

For Production (farmer & industry)

: Production practice – GAP, GHP, GMP
: Commodity specification – commodity/general standards

For Trade

: Trading specification - commodity/general standards

For Certification/Inspection

: System certification - GAP, GHP, GMP, Organic
: Product certification – combination of all standard types
Control of Food Safety at Farm level

Strategy: Implementation of GAP at farm level by

- Establish GAP standards
- Promote GAP implementation among farmers
- Certify GAP farm
- Accredit certification body (CB)
MOAC: Roles on Food Safety Standardization

Activities

- Standard setting
- Agri. Extension/Std. Implementation
- Inspection & Certification
- Accreditation
- Communication & Education

Plants

- DOAE, CPD
- DOA, RD
- ACFS

Livestocks

- DLD
- DOF
- ACFS

Fisheries

- DOF
- DOF
- All

ACFS

DOAE, CPD

DOA, RD

DLD

DOF

All
Agricultural Extension / Food Education

- Develop guidance/manual/training materials for farmer, farm advisor, industry, etc.
- Introduce standards on good practices (GAP) to farmers
- Promote practices that lead to safer and sustainable production e.g. sufficiency agriculture, organic agriculture, pesticide-free production
- Educate consumer for understanding of safe production/products and how to properly choose safe products
- Communicate for wide acceptance of the ‘Q’ mark as a guarantee for safe and good quality product
Certification by MOAC

4 Departments act as CBs/A Authorities

- Department of Agriculture (DOA) for crop/plant products
- Rice Department (RD) for rice
- Department of Livestock Development (DLD) for livestock/animal products
- Department of Fisheries (DOF) for aquaculture/fishery products
GAP Certification/Accreditation

DOA → Government certification bodies for national GAP standards
DLD → national GAP standards
DOF → national GAP standards and possibly Other GAP standards (e.g. GlobalGAP)
RD →

Private CB → national GAP standards and possibly Other GAP standards (e.g. GlobalGAP)

ACFS (as accreditation body or regulatory body) :
Recognize/Accredit government/private CBs for GAP certification (and also other certification e.g. GMP, HACCP, organic)
GAP Certification and Accreditation

Accreditation Body (AB) : ACFS

Certification Body (CB) : DOA, DLD, DOF, RD : Private CBs

Apply for accreditation
- audit
- Accredit CB

Apply for certification
- Inspection, audit
- Certification & Granting certificate / Q Mark

Farm, Producer

National GAP standard

-Cabinet Resolution 2003
-Agricultural Standard Act

-Quality Manual
-ISO/IEC 17021/Guide 65
-National GAP standard

Produce

Consumer
Q – Mark: Certification Mark for Qualified Systems or Products
Standards Applied to FFV

- FFV commodity standards
- Specific GAP standard for each F&V
- General GAP standard for food crops
- GMP standard for FFV packing house
- MRL & EMRL for pesticide residues in foods & agricultural commodities
- Sampling for testing for compliance of pesticide residues
- Standards relating to phytosanitary measures
- Guidance for the application of GAP standard (under development)
GAP

Good Agricultural Practices

Main objectives:
- Food safety
- Essential Quality

Supplementary objectives:
- Productivity
- Premium quality
- Environmental
- Occupational health & safety
- Sustainability
GAP Requirements

- Water sources
- Plantation area
- Pesticides application
- Pre-harvest management
- Harvest and post-harvest handling
- Holding, moving and storage of produce
- Personal hygiene
- Data recording and traceability
The Establishment of Thai MRLs
Establishment of Thai MRL

Agricultural Std Committee

FAO/WHO-JMPR

ADI/ARfD

Exposure assessment

ACFS

Approved label = GAP
Data i.e. Codex MRLs
Supervised Trial, other countries’ national MRLs

MRL - Recommendation

MRL Adoption
MRL/EMRL Classified by Commodity Groups

- Vegetables, 32%
- Meat, Fat & Edible offal, 16%
- Cereals, Pulse, Oilseed, 18%
- Fruits, 15%
- Eggs & Milk, 7%
- Other crops/Produce, 12%
- Vegetables, 32%
- Fruits, 15%
- Cereals, Pulse, Oilseed, 18%
- Eggs & Milk, 7%
- Other crops/Produce, 12%
MRL/EMRL Classified by Pesticide Groups

Insecticides / Acaricides, 608

Fungicides, 103

Herbicides, 45

Other Pesticides, 45
Regional Standards
Harmonization
ASEAN Agricultural Standards Harmonization

- AMAF (THE ASEAN Ministers on Agriculture and Forestry)
  - ASEAN Sectoral WG on
    - Crops: EWG-MRL, AMSHP
    - Fisheries: ASEAN Shrimp GAP
    - Livestocks: Animal Vaccines

- EWG-MRL: Expert WG on the Harmonization of MRL of Pesticide among ASEAN Members
  - 14 meetings since 1996
  - > 800 pesticide MRLs harmonized
  - MRLs based on Codex MRLs and residue data generated by ASEAN members
  - ASEAN Members should establish/revise their national MRLs to comply with ASEAN MRLs
ASEAN Food Standards Harmonization

AMSHP (ASEAN Meeting on Standards for Horticultural Produce)

- Establish ASEAN standards on horticultural produce, and from 2010, TOR revised to include other food crops
- Standards mainly on essential quality issues
- 16 fruits & 3 vegetables e.g. durian, pineapples, mango, papaya, banana, cucumber, garlic standards have been established
- Primary objective is for produce traded among ASEAN but can also be used as a reference for produce traded outside ASEAN
Gaps/Challenges in Food Control

- How to promote implementation of good practices by farmers – Incentive?, Enforcement?
- Food quality vs. Safety / voluntary vs. mandatory application
- Linkage between farm, industry and market
- Consumer/market education/information
- Transportation of produce/product
- Traceability along food chain
Thank you

www.acfs.go.th