Plant Quarantine System of Korea

July 4, 2012

Animal, Plant and Fisheries Quarantine & Inspection Agency/ MIFAFF
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Outlines of Plant Quarantine
What is Plant Quarantine all about?

Protect agricultural & forest products and natural environment against exotic pests

- Border Inspection of plants or plant products
- Pest Risk Analysis (PRA) of exotic plant pests
- Research and Survey for exotic pests
- International Cooperation with NPPOs
1912: Quarantine Legislation on Imported Cherry Trees and Other Fruit Trees

1959: Started the Plant Quarantine Service at Customs Office and regional branches

1961: Enacted the Plant Protection Act

1978: Establishment of National Plant Quarantine Service (NPQS) / MAF

1995: Revision of Plant Protection Act in response to the WTO

2011: QIA
Animal, Plant and Fisheries Quarantine & Inspection Agency
Change of Organization

Merger

NPQS

Advantages

BETTER Public Service
Simplicity
Save National budget
Systemic Pest Control
Integration
Overall R & D

QIA Animal, Plant and Fisheries Quarantine & Inspection Agency
[ June 15, 2011 ]
5 Departments – 29 Divisions – 6 Regional offices – 30 District offices
Total 1,335 staffs (PQ 427)
The purpose of the Act

To contribute to the security and promotion of agricultural and forest production

[ Quarantine of imported, exported & domestic plants ]
[ Control of pests inflicting harms to plants]

Plant Protection Act

- Ordinance of Plant Protection Act
- Enforcement Regulations of Plant Protection Act
- Plant Quarantine Requirements for Import plants
- Regulations for others
Any Plants, Plant products, Storage place, Packing material, Conveyance, Container, Soil and any other Organisms, Object or material that may contain exotic plant pests

**Plants**
Living plants and parts thereof, including seeds and germ plasm

**Pests**
Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products (insects, weeds, mites, snails, viruses, etc)

**Plant products**
Unmanufactured material of plant origin (including grain) and those manufactured products that, by their nature or that of their processing, may create a risk for the introduction and spread of pests
Pest Categorization

- Regulated pest
  - Provisionally regulated pest
  - Non-quarantine pest
- Quarantine pest
- Regulated non-quarantine pest
- Prohibited pest
- Controlled pest
**Regulated pest**
- Pest of potential economic importance to the area endangered
- Not present there or present but not widely distributed & being officially controlled

**Regulated non-quarantine pest**
- Presence in plants for planting affects the intended use of those plants with economically unacceptable impact
- Regulated within the territory of the importing contracting party

**Non-quarantine pest**
- Not officially controlled & widely distributed in the area
Quarantine & Inspection

[ Import ]
General import inspection procedures
[On-site inspection, Laboratory & Post-entry quarantine]

Receipt of application

- On-site inspection
  - Non-quarantine pests or no pests found
  - Prohibited plants found

Laboratory inspection

- Non-quarantine, No pests found
- Prohibited pests found
- Controlled quarantine pests, or provisional regulated pests

Plants of seedlings, fruits, vegetables, flowers, etc.

- Destroyed or reshipped
- Exterminated
- Order for treatment
- Issuance of certificate, Release

No treatments available
- Treatments available

Laboratory Test

**Plants subject to test**
- Plants including seeds and seedlings
- Fresh fruits and vegetables which are difficult to detect pest at the inspection sites

**Pest subject to test**
- Fungus, bacteria, virus, mite, nematode, insect, weed etc.

**Methods of test**
- Incubation test by selective media
- Identification using optical and electron microscopes
- Gene analysis using PCR (Polymerase Chain Reaction) etc.
## Standard of random sampling (planting)

<table>
<thead>
<tr>
<th>Total number of packages</th>
<th>Sampling inspection of package</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ~ 6</td>
<td>All</td>
</tr>
<tr>
<td>7 ~ 14</td>
<td>6</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>55 ~ 64</td>
<td>11</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>105 ~ 114</td>
<td>16</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>155 ~ 164</td>
<td>21</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>195 ~ 204</td>
<td>25</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Over 245</td>
<td>Over 30</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Standard of Plants inspection by items (Non-planting)

<table>
<thead>
<tr>
<th>Types of imported plant</th>
<th>Range of inspection quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed, Cereal (Weat, Soybean etc.)</td>
<td>Under 20 Ton : Over 0.5%  20 Ton ~ 500 Ton : 100 kg  500 Ton ~ 2,000 Ton : 150 kg</td>
</tr>
<tr>
<td>Dried or Frozen plants</td>
<td>Under 20 Ton : Over 0.5%  20 Ton ~ 100 Ton : 100 kg  100 Ton ~ 500 Ton : 150 kg</td>
</tr>
<tr>
<td>Fresh Fruit · Vegetables</td>
<td>Under 20 Ton : Over 0.5%  20 Ton ~ 100 Ton : 100 kg  100 Ton ~ 500 Ton : 150 kg</td>
</tr>
<tr>
<td>Wood &amp; Wood product</td>
<td>2%</td>
</tr>
</tbody>
</table>
Prohibition of Importation

**Prohibited plants and plant products**

- Host plants and plant products growing in the areas distributed with prohibited pests, and those passing through the relevant areas
  - Most of tropical fruits, live insects and pathogens
  - Soil & plants contaminated by soil
  - Containers/packaging of prohibited plants

**Special cases of importation of prohibited items**

- Scientific research or international exhibition purpose
- Exporting country suggests a measure to eliminate the pests & its efficiency is confirmed
- Pest is imported as a biological control agent
Inspection for Imported Plants
To confirm latent pathogens by PCR, ELISA & indicator

- **Growing propagative plants under strict supervision**
  - [In isolated fields]
    - 2 national PEQ stations and private fields designated by QIA
  - [For designated periods]
    - 1 generation for annual plants and 2 years for fruit trees

- **Plant subject to PEQ inspection**
  - Flower bulbs, potato tubers, root tubers of sweet potato
  - Nursery stock, cutting, grafts of fruit trees, strawberry
  - Rose or ornamental cherries
  - Propagative plants that are temporarily permitted by QIA
Post-Entry Quarantine (PEQ) Inspection
Phytosanitary certification and/or clearance in the country of origin, performed under the regular supervision

- Currently dispatching inspectors in exporting countries
  - Papaya from Philippines
  - Mango from Philippines, Thailand, Taiwan, Australia
  - Orange from Spain, South Africa, Australia
  - Walnuts from U.S.

- Methods of inspection
  - Checking production sites, packing houses and storage
  - Checking treatment facilities and treatment process
  - Joint inspection with export country’s inspectors
**Items subject to inspection**
- LMO seeds for planting & stock feed in the original form
  ⇒ Maize, cotton, pumpkin, tomato, carnation & etc.

**Inspection result**
- If LMO is not found or if a LMO plant with approval is imported
  ⇒ Cleared
- LMO plant has not been approved for import or not declared
  ⇒ Destroyed or Returned
Quarantine & Inspection

[ Export ]
Inspections to detect pests on plants for exporting

Issue ‘Phytosanitary Certificate(PC)’ in compliance with the requirements of International Plant Protection Convention(IPPC)

- **Items subject to inspection**
  - All plants, plant products & etc.

- **Inspection location**
  - Growing fields of exporting plants
  - Packing areas
  - Airports or seaports

- **Application for inspection**
  - By fax, mail, or online (EDI)

- **Meet the import requirements**
  - Issuance of PC

- **Not meet the requirements**
  - Rejection notified
Phytosanitary Certificate (PC)

<table>
<thead>
<tr>
<th>Republic of Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry for Food, Agriculture, Forestry and Fisheries</td>
</tr>
<tr>
<td>Animal, Plant and Fisheries Quarantine and Inspection Agency</td>
</tr>
</tbody>
</table>

**PHOTOSANITARY CERTIFICATE**

**TO:** The Plant Protection Organization of 

**DESCRIPTION OF COMMODITY**

- Name and address of importer: 
- Declared name and address of consignee: 

- Number and description of packages: 
- Destination of goods: 
- Port of origin: 
- Declared means of conveyance: 
- Declared point of entry: 
- Name of producer and quarantine declared: 

- Botanical name of Plants: 

This is to certify that the plants, plant products or other regulated articles described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the quarantine pests specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party, including those for completed non-sterilised tests.

**ADDITIONAL DECLARATION**

**DISINFECTION AND/OR DISINFESTATION TREATMENT**

- Date: 
- Treatment: 
- Chemical (active ingredient): 
- Concentration: 
- Duration and temperature: 
- Additional information: 

- Place of issue: 
- Name of authorized officer: 
- Date: [Signature]

**No financial liability with respect to this certificate shall attach to the Animal, Plant and Fisheries Quarantine and Inspection Agency or to any of its officers or representatives.**
**PHYSOSANITARY CERTIFICATE**

Ministry for Food, Agriculture, Forestry and Fisheries
Animal, Plant and Fisheries Quarantine and Inspection Agency

**DESCRIPTION OF CONSIGNMENT**

Name and address of exporter:

Declared name and address of consignee:

Number and description of packages:

Distinguishing marks:

Place of origin:

Declared means of conveyance:

Declared point of entry:

Name of produce and quantity declared:

Botanical name of Plants:

This is to certify that the plants, plant products or other regulated articles described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the quarantine pests specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party, including those for regulated quarantine pests.

**ADDITIONAL DECLARATION**

**DISINFESTATION AND/OR DISINFECTION TREATMENT**

Date: ____________________

Chemical (active ingredient): ____________________

Duration and temperature: ____________________

Treatment: ____________________

Explanation: ____________________

Additional information: ____________________

Place of issue: ____________________

Name of authorized officer: ____________________

Date: ____________________

(Signature)

*No financial liability with respect to this certificate shall attach to the Animal, Plant and Fisheries Quarantine and Inspection Agency or to any of its officers or representatives.*
Inspection for Exporting Plants
Pest Risk Analysis

[ PRA ]
Why conduct PRA
- Designating or revising the list of regulated pests or non-quarantine pests
- Designating or revising the list of prohibited pests, import prohibited areas or prohibited plants
- Request for market access of prohibited plants

PRA procedure
- Step 1 : Check previous PRA & find out pathway of the pest
- Step 2 : Analyze economic loss for agriculture & natural environment
- Step 3 : Provide risk management measures
  [ Treatments, destruction or import ban ]
Exotic Pest Monitoring
Areas subject to monitoring
- Airports & seaports, imported plants cultivation areas, etc.

Methods of monitoring
- pheromone traps, light traps and field survey, etc.

Pests subject to control
- New exotic pests that outbreak at limited regions and require emergency control
### Monitoring & Controlling Exotic Pests

- **How often**: Once in two weeks
- **Period**: May to October
- **Interval**: Each year

<table>
<thead>
<tr>
<th>Pest</th>
<th>Lure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediterranean fruit fly (Ceratitis capitata)</td>
<td>Capilure</td>
</tr>
<tr>
<td>Oriental fruit fly (Bactrocera dorsalis)</td>
<td>Dorsalure</td>
</tr>
<tr>
<td>Melon fly (B. curcubitae)</td>
<td>Cuelure</td>
</tr>
<tr>
<td>Codling moth (Cydia pomlella)</td>
<td>Pheromone</td>
</tr>
<tr>
<td>Other fruit flies</td>
<td>Proteinlure</td>
</tr>
</tbody>
</table>
International Cooperation
## Market Access of Foreign Agricultural Products to Korea ‘10~11

<table>
<thead>
<tr>
<th>YEAR</th>
<th>FRESH PRODUCT</th>
<th>COUNTRY (REGION)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Durian</td>
<td>Malaysia</td>
</tr>
<tr>
<td></td>
<td>Dragon fruit</td>
<td>Vietnam</td>
</tr>
<tr>
<td></td>
<td>Mangosteen</td>
<td>Thailand</td>
</tr>
<tr>
<td></td>
<td>Yellow pitahaya</td>
<td>Columbia</td>
</tr>
<tr>
<td></td>
<td>Cherry</td>
<td>Australia (Tasmania)</td>
</tr>
<tr>
<td></td>
<td>Sweet cherry</td>
<td>Uzbekistan</td>
</tr>
<tr>
<td></td>
<td>Orange</td>
<td>Argentina</td>
</tr>
<tr>
<td>2011</td>
<td>Orange/ Grapefruit</td>
<td>Israel</td>
</tr>
<tr>
<td></td>
<td>Grape</td>
<td>Peru</td>
</tr>
<tr>
<td></td>
<td>Potato</td>
<td>New Zealand</td>
</tr>
</tbody>
</table>
International Cooperation Projects

- IPPC Draft ISPM workshop (September 2011; since 2006)
- ASEAN plant quarantine expert training program (May 2011; since 2006)
- IPPC Phytosanitary e-certification workshop (June 2011)
- APPPC the pest incursion & eradication workshop (September 2010)