SEED POTATO CERTIFICATION SYSTEM IN INDONESIA

Dedi Ruswandl
SEED CONTROL AND CERTIFICATION SERVICE FOR FOOD CROPS AND HORTICULTURE WEST JAVA PROVINCES INDONESIA
CERTIFICATION:

Process of giving certificate for seed which is already passed by inspection and laboratory test. The seeds also have to fulfill conditions to be distributed.
The Purposes of Seed Potato Inspection and Certification Program

- To maintain generation purity for each variety
- To support seed potato growers in producing good quality seed which is healthy, and economically viable
- To help users to get good quality seeds as they desired, by issuing certificate and labels which will ensure that the seeds potato have been inspected
LAWS AND REGULATIONS FOR POTATO
SEED INSPECTION

- Laws No. 12 / 1992 on Plant Cultivation
- Government Regulation No. 44 / 1995 on Seed Production
- MOA Decree No. 803/KPTS/OT.210/7/97
- Directorate General of Food and Horticulture
  No. I.Hk.050.98.58
  No. I.Hk.050.2.600.01
  No. S.K.I.Hk.050.84.70
CERTIFICATION PROCEDURE

Application → Inspection

Certificate

Label

Field Inspection
- Preliminary
- Growing Stage

Tuber Inspection
- After Harvest In Storage / Warehouse
SEED GROWERS

Private (individual), Association, Cooperative, Government, Government Company, Private Company

Seed Growers Condition, such as:

a. Registered at Seed Control and Certification Services.
b. Knowledgeable
c. Seed Source, Field, Storage and Capital
d. Obey the Laws and Regulations
SEED GROWER OBLIGATION

- Submit the application to Seed Control and Certification Services
- Manage and maintain the field and storage
- Follow all inspection
- Provide true information
- Make notes and reports
- Distribute certified seed attached with label issued by Seed Control and Certification Services
- Be responsible on seed potato production quality
ORGANIZATION STRUCTURE OF SEED POTATO INSPECTION SYSTEM

LAB SCREENHOUSE

RESEARCH INSTITUTE FOR VEGETABLES (RIV)

RIV COMPANY

TRUE TO TYPE

MOTHER TUBER

PLANLET/MICRO TUBER

SUPER ELITE

BREEDER SEED RECOMMENDATION WHITE LABEL

FOUNDATION SEED-1/WHITE LABEL

G-0 CUTTING/MICRO TUBER

G-1

G-2

FOUNDATION SEED FARM

FOUNDATION SEED-2/WHITE LABEL

G-3

STOCK SEED FARM

STOCK SEED/PURPLE LABEL

G-4

SEED GROWERS

EXTENTION SEED/BLUE LABEL

FARMERS

SEED CONTROL AND CERTIFICATION SERVICES

TISSUE CULTURE

ELISA

ELISA

ELISA

FARMERS
TIME OF INSPECTION

- **Preliminary Inspection**
  - Before Planting
  - Confirmation of Field, Planting Time, etc.

- **Field Inspection**
  - 30 – 40 Days After Planting
  - 40 – 50 Days After Planting
  - 50 – 70 Days After Planting
  - Pests and Diseases
  - Varietal Mixture

- **Tuber Inspection**
  - After Harvest, After Sorting and After Grading
  - Pests and Diseases, Varietal Mixture
Preliminary Inspection

- Confirmation of administrative matter
- Pre-planting examination for PCN
- Crops isolation from consumption potato minimum 10 meter
- Seed can be produced only on land where result of PCN is negative
- Crops rotation, must not have grown potato or Solanaceus plant for minimum three seasons.
Methods of Inspection (continue)

- Inspection will be done by Certifying Authority (Seed Inspector)
- Inspection at the field (Field Inspection)
  - Visual examination of sample plants for Virus diseases, bacteria, fungi, nematode and insect virus vector.
  - All rouged material (leaves, stems, roots and tubers must removed from the field)
Methods of Inspection (Continue)

- Inspection at storage (Tuber Inspection)
  - Visual examination of sample tubers for Bacteria, fungi, nematodes, potato tuber moth and tuber damage

- Crops or tubers which fail to meet the standards will not be certified
Methods of Inspection (Continue)

• Sampling
  ▪ Crops up to 1 ha minimum 1000 plants
  ▪ Tubers up to 15 ton minimum 1000 tubers
### FIELD INSPECTION STANDARDS

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<tbody>
<tr>
<td>1</td>
<td>Isolation (min)</td>
<td>Screen</td>
<td>10 m</td>
<td>10 m</td>
<td>10 m</td>
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<tr>
<td>2</td>
<td>Virus diseases (max)</td>
<td>0.0 %</td>
<td>0.1 %</td>
<td>0.5 %</td>
<td>2.0 %</td>
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<td>3</td>
<td>Bacterial wilt (max)</td>
<td>0.1 %</td>
<td>0.5 %</td>
<td>1.0 %</td>
<td>1.0 %</td>
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<tr>
<td>4</td>
<td>Potato Cyst Nematode</td>
<td>-</td>
<td>0 %</td>
<td>0 %</td>
<td>0 %</td>
</tr>
<tr>
<td>5</td>
<td>Late blight and other diseases (max)</td>
<td>2.0 %</td>
<td>10 %</td>
<td>10 %</td>
<td>10 %</td>
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<tr>
<td>6</td>
<td>Varietals mixture (max)</td>
<td>0.0 %</td>
<td>0.0 %</td>
<td>0.1 %</td>
<td>0.5 %</td>
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<tr>
<td>7</td>
<td>Field management *</td>
<td></td>
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*Field management:
- The field may be rejected in the case of poor field management, such as the existence of volunteer potato plants, diseases weed reservoirs and aphids.
- The field may be rejected if inspection is impossible, as a result of mechanical damage of foliage, serious insect damage, or poor growth.
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<tr>
<td>1</td>
<td>Brown rot and Soft rot (max)</td>
<td>0.0 %</td>
<td>0.3 %</td>
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<tr>
<td>2</td>
<td>Common scab, Powdery scab, Black scurf, Late blight (max)</td>
<td>0.5 %</td>
<td>3.0 %</td>
<td>5.0 %</td>
<td>5.0 %</td>
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<tr>
<td>3</td>
<td>Dry rot (max)</td>
<td>0.1 %</td>
<td>1.0 %</td>
<td>3.0 %</td>
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<tr>
<td>4</td>
<td>Damage of tuber by Potato tuber moth (max)</td>
<td>0.5 %</td>
<td>3.0 %</td>
<td>5.0 %</td>
<td>5.0 %</td>
</tr>
<tr>
<td>5</td>
<td>Potato Cyst Nematode</td>
<td>-</td>
<td>0.0 %</td>
<td>0.0 %</td>
<td>0.0 %</td>
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<tr>
<td>6</td>
<td>Root-knot nematode (max)</td>
<td>0.5 %</td>
<td>3.0 %</td>
<td>5.0 %</td>
<td>5.0 %</td>
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<tr>
<td>7</td>
<td>Varietals mixture (max)</td>
<td>0.0 %</td>
<td>0.0 %</td>
<td>0.1 %</td>
<td>0.5 %</td>
</tr>
<tr>
<td>8</td>
<td>Mechanical damage from a hoe or agricultural machinery or biting damage from insects or small animals (max)</td>
<td>0.5 %</td>
<td>3.0 %</td>
<td>5.0 %</td>
<td>5.0 %</td>
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Thank you