Fred Jacobs

- Quality Inspection Bureau
  for fruits and vegetables (K.C.B.)

The Netherlands
KCB: is at the moment

Competent inspection body by Ministry of Agriculture

Our tasks are:
- conformity checks of Dutch product (export and domestic market) and partially re-export product
- in order from the PD (Dutch plant protection service) phytosanitary inspections
KCB will become

Competent inspection body by Ministry of Agriculture

Tasks for the future (September 2007):
- conformity checks of Dutch & imported products, also re-export inspections
- phytosanitary inspections (Import en export)

* Only 1 inspection body for import / export, quality and phytosanitary issues

* Dutch Plant Protection Services (PD) keeps the policy
AQS

- Agro Quality Service = 100 % daughter of KCB
  - private orders for quality checks
  - audits (EUREP- Gap, BRC, HACCP etc.)
  - education/training for quality-inspectors by companies (traders en exporters) and to give training for inspection bodies in foreign countries.

It’s allowed (regular) that AQS can ask KCB inspectors to do this kind of activities
Inspection methods and Sampling

- Mentioned in EC no 1148/2001
A) CONFORMITY CHECK:

Inspections carried out by an inspector in accordance with this regulation to check that fruit and vegetables conform the marketing-standards laid down in Regulation 2200/96
Conformity check

THIS INSPECTIONS INCLUDE:

- where appropriate a documentary and identity inspection

- A physical inspection

DIP: Documentary inspection,
Identity: origin, classification, amount, dispatcher
Physical inspection: external/ internal quality, weight and size (if obligatory)
Definition

- B) INSPECTOR

  - Person authorized by the competent inspection body *who has an appropriate and regular training enabling them to undertake conformity inspections*
C) CONSIGNMENT

- Quantity of product to be sold by a given trader found at the time of inspection and defined by a document
- The consignment may consist of one or several types of produce. It may contain one or several lots of fresh fruit and vegetables
D) LOT:

Quantity of produce has similar characteristics with regards to:

- Packer or dispatcher
- Country of origin
- Nature of produce
- Size
- Variety or commercial type
- Packaging and presentation
LOT
Definition

- E) SAMPLING:
  - Sample taken from a lot during conformity check inspection
Definition

- PRIMARY SAMPLE:
  - Package taken from the lot (in case of bulk produce a quantity taken from a point in the lot).
  - In the case the fruit or vegetable weights more then 2 kg, the primary samples should be made up of at least 5 units.
PRIMARY SAMPLE
Definition

- **BULK SAMPLE:**
  - several *representative* primary samples taken from the lot
Definition

- **REDUCED SAMPLE:**
  - Representative quantity of produce taken from bulk sample
  - shall not exceed more then 10% of the bulk sample
Definition

- **SECONDARY SAMPLE:**
  - A representative quantity taken from a primary sample weighing between 300 - 1000 gr
  - In case of packaged food (prepacked) the secondary sample shall be one package
SECONDARY SAMPLE
Definition

- **COMPOSITE SAMPLE:**
  - A mix of secondary samples at least 3 kg
COMPOSITE SAMPLE
Definition

- PACKAGES:
  - Individually packaged part of a lot
Definition

- **SALES PACKAGES:**
  - Individually packaged part of a lot.
  - The packaging of sales packages is conceived so as to constitute a sales unit to the final user at the point of purchase.
Sampling

- A physical check shall be made by assessing bulk samples taken at random from different points in the lot

( It is based on the principle of presumption that the lot is conform the bulk sample)
Sampling

- **IDENTIFICATION:**
  - The consignment of lots shall be carried out on the basis of their marking or other criteria.
  - In case of consignments, which are made up of several lots, it’s necessary for the inspector to get a general impression of the consignments.
Sampling

- **PRESENTATION OF PRODUCE:**
  - The inspector decides with packages are to be controlled.
  
The presentation shall be made by the operator. The procedure should include the presentation of the bulk sample.
Sampling

- PHYSICAL CHECKS
  - Assessment of packaging and presentation on the basis of primary samples
  - Verification of marking
  - Verification of conformity of the produce based on the sampling

The inspector shall determine the size of the bulk in such way as to able to assess the lots
The bulk should comprise the following quantities (whenever a consignment is declared unsatisfactory):

- Up to 100 kg or number 5
- 101- 300 7
- 301- 500 9
- 501- 1000 10
- > 1000 15 minimum
Sampling

- The produce has to be removed entirely from its packaging for the control.

- The inspector may only dispense with this in case the type of packaging and form of presentation allow an inspection without unpacking produce.
Sampling packed Produce

- The bulk should comprise the following quantities (whenever a consignment is declared unsatisfactory)
  - Up to 100 number or kg  5
  - 101 - 300  7
  - 301 - 500  9
  - 501 - 1000  10
  - > 1000  15 minimum
Sampling Bulk Produce

- The bulk should comprise the following quantities (whenever a consignment is declared unsatisfactory):

  - Up to 200 kg: 10 kg
  - 201 - 500 kg: 20
  - 501 - 1000 kg: 30
  - 1001 - 5000 kg: 60
  - > 5000 kg: 100 = minimum
Sampling
Conformity check internal quality

- Internal quality issues:
  - Internal brown (apples, pears)
  - Hollow fruit (pears, tomatoes)
  - Maturity fruit (iodine)
  - Brix value (melon, kiwi)
  - Sprouting (chicory, cabbage, leek)
  - Internal quality (onions)
## Sampling in case of internal check

<table>
<thead>
<tr>
<th>amount</th>
<th>wrong</th>
<th>good</th>
<th>take more fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>0</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>1</td>
<td>no</td>
<td></td>
<td>yes ▶ 40</td>
</tr>
<tr>
<td>2</td>
<td>no</td>
<td></td>
<td>yes ▶ 90</td>
</tr>
<tr>
<td>3 or more</td>
<td>no</td>
<td></td>
<td>stop (reject)</td>
</tr>
</tbody>
</table>

Above mentioned in case of major defects - 2% tolerance!
### Sampling in case of internal check

<table>
<thead>
<tr>
<th>Amount</th>
<th>wrong</th>
<th>good</th>
<th>take more fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>0</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>1</td>
<td>no</td>
<td>yes</td>
<td>yes ➤ 25</td>
</tr>
<tr>
<td>2</td>
<td>no</td>
<td>yes</td>
<td>yes ➤ 75</td>
</tr>
<tr>
<td>3 or &gt;3</td>
<td>no</td>
<td>no</td>
<td>stop</td>
</tr>
</tbody>
</table>

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# Sampling in case of internal check

<table>
<thead>
<tr>
<th>Amount</th>
<th>wrong</th>
<th>good</th>
<th>take more fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>1</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>2</td>
<td>no</td>
<td></td>
<td>yes ➤ 50</td>
</tr>
<tr>
<td>3 or &gt; 3</td>
<td>no</td>
<td></td>
<td>stop</td>
</tr>
</tbody>
</table>

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## Sampling in case of internal check

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<tr>
<th>Amount</th>
<th>wrong</th>
<th>good</th>
<th>take more fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>2</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>3 or &gt;3</td>
<td>no</td>
<td></td>
<td>stop</td>
</tr>
</tbody>
</table>

Above mentioned in case of major defects - 2% tolerance!
## Sampling in case of internal check

<table>
<thead>
<tr>
<th>Amount</th>
<th>Wrong</th>
<th>Good</th>
<th>Take more fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>2 up to &amp; incl 5</td>
<td>no</td>
<td>yes</td>
<td>yes ▶ 40</td>
</tr>
<tr>
<td>6 up to &amp; incl 10</td>
<td>no</td>
<td>yes</td>
<td>yes ▶ 90</td>
</tr>
<tr>
<td>&gt;10</td>
<td>reject</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Above mentioned in case of minor defects – 10 % tolerance
### Sampling in case of internal check

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<th>Amount</th>
<th>wrong</th>
<th>good</th>
<th>take more fruits</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>incl.10</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>11 and up</td>
<td>no</td>
<td></td>
<td>stop (reject)</td>
</tr>
</tbody>
</table>

Above mentioned in case of minor defects – 10% tolerance
Any Questions?
Please ask

Fred Jacobs
K.C.B.