International Standards for Agricultural Products

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United Nations Economic Commission for Europe (UNECE)
Outline

- UNECE
- The role of agriculture and trade
- History, goals and role of commercial quality standards
- Quality of agricultural products
- UNECE Agricultural Quality Standards – Development and Implementation
- Future work
5 Regional Commissions of the United Nations

ECE - Geneva
ESCWA - Beirut
ECA - Addis-Ababa
ESCAP - Bangkok
ECLAC - Santiago
UNECE Data

- Set up in 1947 by ECOSOC
- 55 Member States in North America, Asia and Europe
- 200 employees
UNECE Mission

• Encourage greater economic cooperation among its member states
• Facilitate trade between member states and beyond in all stages of the supply chain
• Encourage sustainable development of its member states
UNECE Services

- Evaluate the economic situation in the UNECE area
- Provide a forum for governments to develop conventions, regulations and standards
- Provide capacity building activities to facilitate integration of member states
UNECE Work Areas

Inland Transport

Environmental Policy

Statistics

Sustainable Energy

Trade
UNECE Trade and Timber Division

TRAD

Timber

Technical Harmonization and Standardization Policies, Conformity assessment, Market surveillance

TRADE

UN/CEFACT

Agricultural Quality Standards
Agriculture and trade: keys to civilization

• We all need to eat!
• We need to get the right quantity of good quality food
• How we get our food and what we eat determines how we live
• Agriculture and trade have given us the time to create the civilization we know today
Modern agriculture: A success story!

• More people than ever before have enough to eat and pay less for it
• There are more people today – but the percentage of people suffering from hunger and malnutrition has decreased
• Average life expectancy has increased
• Science and technology allow us to produce more with less workers
• There is more choice in food products than ever before and most products are available all year around in many places
• ...
Modern agriculture: A success story?

- People are still starving or suffer from malnutrition in some countries
- In the same countries and elsewhere a growing number of people die from eating too much and inappropriate food (too much fat, too much sugar)
- Small farmers have problems competing
- Many people complain about the taste of fruit and vegetables
- Agriculture has created problems with soils and water
- Agriculture has created new food safety problems
- ...
Could we do it differently?

- Good traditional cooking and gastronomy use high quality, natural ingredients and are healthy and tasty
- Good quality food is not necessarily expensive or difficult to prepare
- Competition could be based first on quality then on price
Values and education

• Problems: Lack of education

• Profit seeking can be a source of motivation – but when it is missing values, responsibility and, most of all, accountability, it can create problems

• We need responsible, well informed actors in the food supply chain from the producers to the consumers
The role of agriculture and trade

• Agriculture and trade should give all of us:
  – Enough, affordable, safe, healthy, tasty food
  – That has been produced in a sustainable way, with respect to our environment; and
• Agriculture and trade should give those who work there a fair income and good working conditions
Trade in agricultural products in the ECE region in 1949

- Countries use national quality standards to regulate trade within their borders
- Producers market
- Growing interest in international trade
- Existing national regulations became barriers to international trade
Harmonization of national standards

- 1949 The Working Party on Agricultural Quality Standards takes up its work at UNECE in Geneva

- 1954 The Geneva Protocol and Standard Layout are adopted
Why standards?

- To define common trading language for all actors in the supply chain
- To facilitate fair international trade
- To avoid bad quality products on the markets
- To guide producers to meet market requirements
- To build trust and market opportunities
- To encourage high quality production
- To improve producers’ profitability
- To protect consumers’ interests
- Remove technical barriers to trade
Aspects of quality: Two basic notions

- The totality of **features and characteristics** of a product, process or service that bear on its **ability to satisfy stated or implied needs** as broadly defined in ISO 9000:2000

- "Excellence" – something that distinguishes a product from similar products and justifies demand
Aspects of quality for food: absence, presence, excellence

• **Absence** of defect, fraud and adulteration (e.g. food safety, quality defects) – regulated in food safety and quality standards

• **Presence** of expected properties (e.g. nutritional components, external and internal quality aspects) – regulated or starting to be in food quality or labelling standards
Aspects of quality for food: absence, presence, excellence

Excellence

• Added value through:
  – Forms of production (organic farming, environmental consideration, animal welfare)
  – Specific production areas (designation of origin) and their associated traditional production methods

• High interest in this area:
  – Operators try to distinguish their products from similar ones to attract customer attention and fidelity
  – Regulators provide a legal framework
Aspects of quality: Commercial quality

- No quality without safety
- Quality is MORE than safety
- Commercial quality is a set of parameters describing internal and external characteristics of the produce, which are necessary to ensure transparency in trade and good eating quality
Aspects of quality for food: Commercial Quality

External
Cleanliness
Colour
Freshness
Shape
Presentation
Packing…

Internal
Taste
Maturity
Nutrition…

Commercial quality
Evaluation of commercial quality

• Subjective
  – Sensorial characteristics (taste, smell, texture, colour…)

• Objective
  – Analytical or physical measurements
UNECE Standard Layout

- Definition of produce
- Minimum requirements
- Maturity requirements
- Classification (Extra, Class I, Class II)
- Sizing provisions
- Tolerances (quality, size)
- Presentation (uniformity, packaging)
- Marking
- Annexes: Definitions, Lists of varieties, Testing and Sampling procedures
Principles for the development of UNECE Standards

- All relevant actors in the supply chain (buyers, sellers, retailers, producers, consumers etc. through their associations) should participate

- Cooperation with other international organizations should be sought and any duplication avoided

- All UN member countries can participate with the same rights

- Decisions are taken on a consensus basis
Participation

Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Bulgaria, Cameroon, Canada, Chile, Côte d’Ivoire, Cyprus, Denmark, Estonia, Finland, France, Germany, Georgia, Greece, Hungary, India, Ireland, Italy, Kenya, Lithuania, Morocco, Netherlands, New Zealand, Poland, Portugal, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Switzerland, Ukraine, Thailand, Turkey, United Kingdom, United States, Uruguay, European Community
Organizational Structure

General Assembly
Economic and Social Council
Economic Commission for Europe
Committee on Trade
Working Party
  on Agricultural Quality Standards

Specialized Section on Standardization of
  Fresh Fruit and Vegetables
  Dry and Dried Fruit
  Seed Potatoes
  Meat
Process of developing a UNECE standard

Specialized Section and Working Party agree to create/amend a standard

Rapporteurs
prepare/amend text

Specialized Section
discusses
text in detail

Working Party
discusses
text in general

UNECE Standard

UNECE Recommendation
trial period (1-3 years)
Implementation of standards
Standards available

Dry and Dried Produce (17)

Fresh Fruit and Vegetables (50)

UNECE Agricultural Standards

Seed Potatoes (3)

Eggs and Egg Products (5)

Cut Flowers (8)

Meat (5)
<table>
<thead>
<tr>
<th>Fruits</th>
<th>Vegetables</th>
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<tbody>
<tr>
<td>Annonas</td>
<td>Headed Cabbages</td>
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<tr>
<td>Apples</td>
<td>Carrots</td>
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<td>Apricots</td>
<td>Cauliflowers</td>
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<tr>
<td>Artichokes</td>
<td>Chinese Cabbages</td>
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<td>Asparagus</td>
<td>Cherries</td>
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<td>Aubergines</td>
<td>Citrus fruit</td>
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<td>Avocados</td>
<td>Cucumbers</td>
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<td>Beans</td>
<td>Courgettes</td>
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<td>Bilberries and Blueberries</td>
<td>Cultivated mushrooms</td>
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<td>Broccoli</td>
<td>Edible sweet chestnuts</td>
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<td>Brussels sprouts</td>
<td>Fennel</td>
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<td>Fresh figs</td>
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<td>Garlic</td>
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<td>Horse-radish</td>
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<td>Kiwifruit</td>
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<td>Leeks</td>
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<td>Lettuce and endives</td>
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<td>Onions</td>
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<td>Peaches and Nectarines</td>
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<td>Pears</td>
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<td>Peas</td>
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<td>Pineapples</td>
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<td>Plums</td>
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<td>Potatoes: early &amp; ware</td>
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<td>Radishes</td>
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<td>Raspberries</td>
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<td>Ribbed celery</td>
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<td>Rhubarb</td>
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<td>Scorzonera</td>
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<td>Spinach</td>
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<td>Strawberries</td>
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<td>Sweet peppers</td>
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<td>Table grapes</td>
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<td>Tomatoes</td>
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<td></td>
<td>Watermelons</td>
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<td>Witloof chicory</td>
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Current and future work in 
Fresh Fruit and Vegetables

• Internal quality/Maturity requirements
• Control certificate
• Promoting trade in Fresh Fruit and Vegetables to contribute to a WHO strategy on Diet, Health and Physical Activity
• New standards for Shallots, Truffles and Ceps
Internal quality

• The goal (for now) is to define the minimum internal quality which a fruit/vegetable must have in order to still deserve its name.

• To remove external quality requirements from the standards or reduce them (e.g. size for apples).

• To make it easier for organic produce to make it into Class I.

• To avoid immature fruit on the markets at the beginning of the season.

• Question: Can a December tomato still be called a tomato?
Cooperation with WHO

• WHO recommends the intake of a minimum of 400g of fruit and vegetables per day for the prevention of chronic diseases such as heart disease, cancer, diabetes and obesity.
Postcards promoting the strategy

How many did you eat today?

Ne les mangez pas seulement des yeux!

Сколько фруктов и овощей вы съели сегодня?

你今天吃了多少？

¿Cuántas ha comidoused hoy?

How many did you eat today?

How many did you eat today?

Ne les mangez pas seulement des yeux!
**UNECE Standards for Dry and Dried produce**

<table>
<thead>
<tr>
<th>Dry and Dried produce</th>
<th>Dry and Dried produce</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Apples, dried</td>
<td>• Pine nuts, decorticated peeled</td>
</tr>
<tr>
<td>• Apricots, dried</td>
<td>• Pistachio kernels, decorticated and decorticated peeled</td>
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<tr>
<td>• Cashew kernels</td>
<td>• Pistachio kernels, unshelled</td>
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<tr>
<td>• Dates, whole</td>
<td>• Prunes, sweet</td>
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<tr>
<td>• Figs, dried</td>
<td>• Almonds, decorticated</td>
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<tr>
<td>• Grapes, dried</td>
<td>• Sweet almonds, unshelled</td>
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<td>• Hazelnuts, inshell</td>
<td>• Walnut kernels</td>
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<tr>
<td>• Hazelnut kernels</td>
<td>• Walnuts, inshell</td>
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<tr>
<td>• Pears, dried</td>
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</tbody>
</table>

**UNECE Standards for Quality**
Current and future work in Dried Produce

- Revision of standards for pistachios and almonds

- New standards for Dried Peaches, Pecan nuts, Macademia nuts, Dried Peppers, Dried Tomatoes, Peanuts
Extra Class: Uniformly light-coloured kernels with practically no dark straw and/or lemon yellow and with no dark brown.

Class I: Kernels of a colour not darker than light brown.

Class II: Kernels of a colour not darker than dark brown. Darker kernels may be marketed in this class, provided the colour is indicated on the package.
UNECE Standards for Meat

- Porcine Meat - Carcases and Cuts - 1998 - currently being revised
- Bovine Meat - Carcases and Cuts – 2004
- Ovine Meat - Carcases and Cuts – 2004
- Chicken Meat - Carcases and Parts – 2004
- Llama/Alpaca Meat – 2004
- Other standards planned: Goat, Turkey, Veal
Example: Bovine Coding

(01) 91234567890121 - Global Trade Item Number (GTIN)
(3102) 000376 - Net Weight, kilograms
(7002) 15111110205142111 - UN/ECE Meat Carcasses and Cuts Code
(13) 001231 - Slaughter/Packaging Date
(10) 123ABC - Batch Number
The situation today

- Consumers market - Consumers concerned about quality and safety
- Complex international supply chains
- Big retailers operate globally
- More countries enter the international markets
- Trade creates their own strict standards
- New technologies allow new types of quality testing
- Problems as mentioned in the introduction
Future work

• Private and public standard setting and implementation bodies work together, complementing each other
• Definition of parameters and values for internal quality of produce and use new technologies for testing
• Encourage good quality and good farming practices by giving recognition to those who farm in a sustainable way
• Support the trade of organic produce by basing the definition of quality less on external appearance and more on internal parameters
• Codify standards to be used in electronic commerce; Electronic export certification
• Develop training packages to assist countries in the implementation of standards
Why participate in standardization?

- To be integrated in the international trading system (to contribute and decide)
- To propose standards for local products for which international standards do not exist
- To network, exchange experiences, learn from others
Products with future

• High quality products which can command a high price

• Promotion of “brand awareness” for local products (controlled origin labels)

• Organic produce
UNECE Agricultural Quality Standards on internet

http://www.unece.org/trade/agr