Food and Nutrition Labelling in the European Union

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### Type of Information given by Food Labels

<table>
<thead>
<tr>
<th>Statutory Information</th>
<th>Voluntary information</th>
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</thead>
<tbody>
<tr>
<td><strong>Horizontal rules:</strong> basic requirements for safety and quality, nature of ingredients, shelf life, storage conditions</td>
<td>Marketing needs for purchasing decision &amp; subsequent use: trademark, brand, product positioning claim, logo, images, recipes, offers; fair trade</td>
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<tr>
<td><strong>Vertical rules:</strong> definition and composition of specified foods, quality grading; GMO, novel f.</td>
<td>Bar code</td>
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<td></td>
<td>Protected designations of origin…</td>
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<td></td>
<td>Nutritional labelling, Health claims</td>
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<td></td>
<td>Production or Processing information: e.g. organic foods, recyclable package</td>
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**Voluntary information must take into account several constraints:**
- Legal: accurate, not misleading, verifiable, standard…
- Relevance to consumer interests (wide individual variations)
- Risk of overloading (label = communication, not educational tool)
- Size of package and of label

### Trends Behind the Need for More Label Information

- Increasing sales of pre-packaged foods
- Self-service
- Multitude of new & multinational products
- Commercial competition and offers
- Organisation of distribution chain (bar code…)
- Consumer concerns (organic, GMO, allergens, health, additives…)
- New preparation methods (microwave, thawing instructions, convenience foods, minimal processing and chill requirements)
- Affluent senior consumers
Labelling Objectives
Labelled container for pre-packaged foods

The label has many functions:
- inform the consumer & prevent confusion
- protect the consumer against risks and abuses
- help sell the product (labels strongly influence consumer choice)
- promote fair trade and prevent frauds

Conflicts may arise between these different objectives.

Consumers’ right to information
allowing “informed choice” in full knowledge of the facts

Principles of EU Labelling Rules

Harmonisation of national legislations — no obstacles to free trade
(free circulation of products & equal conditions of competition
within the internal market of the Community)

• General rules which apply horizontally to all foodstuffs put on
the market. For foods to be delivered as such to the ultimate
consumer (retail stage), and also for foods intended for supply to
mass caterers (restaurants, hospitals, canteens…)

• Specific rules which apply vertically to particular foods (defining food
names & composition, registering origin or specificity, grading quality, supporting
agricultural producers, stabilising markets…)

Principles of EU Labelling Rules (2)

Member States may impose language requirements, and lay down certain national provisions. But these provisions should be subject to a Community procedure.

Member States may also lay down rules for the labelling of foodstuffs sold in bulk. Information should nevertheless be provided for the consumer.

European Legislation mainly consists in:
- Regulations (directly applicable to all M.S.),
- Directives (require transposition into national legislations)

Proposed by the Commission, and adopted by the Parliament and the Council (of Ministers) following a “co-decision” procedure.

No Misleading the Consumer

- Concerning the characteristics of the foodstuff (nature, identity, properties, composition, quantity, storage life, origin, method of production or manufacture…)
- Do not attribute to the foodstuff effects or properties which it does not possess
- Do not suggest that the foodstuff possesses special characteristics when all similar foodstuffs possess similar characteristics
- No medicinal property claims (preventing, treating or curing a human disease) (special rules concern mineral waters and foodstuffs for particular nutritional uses)
- These prohibitions also apply to the presentation of foodstuffs (appearance, packaging, arrangement, setting for display) & to advertising
Codex Alimentarius

Body of food standards, guidelines, recommendations, codes of practice agreed upon by 172 countries which have negotiated in regular meetings of specialised Codex Committees established by FAO and WHO, e.g. Codex Committee on Food Labelling of pre-packaged foods

The main mission of Codex Alimentarius is to protect consumers health and to ensure fair practices in international food trade

1. Food safety standards

2. Agricultural Trade and Quality Standards: identify and describe the food as purchased and consumed, including all its ingredients

http://www.codexalimentarius.net

Codex Alimentarius (2)

3. Voluntary made claims (e.g. on production methods)
   Rules are devised for defining such claims to avoid misleading and unfair competition

• EU legislation is generally in agreement with Codex Alimentarius

• The international Agreement on Sanitary and Phytosanitary measures considers that WTO Member States applying Codex standards meet their obligation under this agreement

• Now, international consensus is challenged by “public interest” groups requiring mandatory labelling of geographical origin, treatment of animals, processing technology, genetic modification…
Main European Horizontal Directive Related to Food Labelling

2000/13/EC of 20 March 2000
(OJ L 109, 6.5.2000, p. 29-42)

on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs
E U Mandatory Requirements for Labelling of Pre-Packaged Foods

1. Name under which the food is sold
   not trademark, brand, fancy name…
   + some processing indications

2. List of ingredients

3. Quantity of certain ingredients or categories of ingredients

4. Net quantity of food (metric unit of volume or mass; drained)

5. Date of minimum durability
   (“best before…” or “use by…” date)

10. Alcoholic strength by volume (% vol.) for beverages
    containing more than 1.2% by volume

E U Mandatory Requirements for Labelling of Pre-Packaged Foods (2)

6. Any special storage conditions or conditions of use

7. Name & address of the manufacturer, packer, distributor,
   importer or EU vendor

8. Place of origin (if omission would mislead consumers)
   compulsory for bovine meat

9. Any necessary instructions for use (when given, should enable appropriate use of the food)
   • Lot n° (production or packaging lot; in view of traceability)
   • Indication of prices (selling price + price per unit of measurement)
Additional Requirements including Languages

All indications must be easy to understand, easily visible, clearly legible and indelible.

Compulsory labelling indications must be shown in a language easily understandable by the ultimate consumer.

Member States, within their own territories, may require one or more languages (within the official languages of the EU) for the compulsory labelling indications (for domestic & imported foods).

The labelling indications may be given in several languages.

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List of Ingredients

All ingredients should be listed in decreasing order of weight as recorded at the time of their use in the manufacture of the food.

Ingredients should be given specific names (same as when sold as a food).

Specific rules apply to added water; concentrated/dehydrated ingredients; mixtures of fruits, vegetables, herbs and spices (“in variable proportions”)

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List of Ingredients (2)

A compound ingredient may be listed under its own name, and according to its overall weight, but its name must be followed by a list of its own ingredients.

Additives (in the compound ingredient) serving a technological role in the food must be listed.

Food additives must be designated by the name of their category followed by their specific name or EC number.

Example: “Preservative, sodium benzoate” or “Preservative E 211”

Quantitative Indication of Ingredients (QUID)

This rule applies to ingredients which appear in the legal name, or are usually associated with the food, or which are emphasized on the label or picture or graphics, or which are essential to characterise a food, compare it to similar foods, and avoid confusion.

The quantity must be shown as a percentage.

It must appear next to the legal name of the food, or to the name of the ingredient in the list of ingredients.

This does not apply to constituents naturally present in the food, nor to non prepackaged foods, nor to foods with specific EC regulations.

Guidelines are available (III/5260-rev5/98 of 21 Dec. 98)
Amendments to Directive 2000/13/EC as regards Ingredients Present in Foodstuffs


(OJ L 308, 25.11.2003, p.15-18)

Latest compliance date: 25 November 2005

Objectives: very low doses of some food ingredients, including some food additives (SO2) and processing aids can cause allergies or intolerances, with mild to fatal health risks, and common food allergens are found in many processed foods. It is therefore necessary for safety to give consumers complete information on food composition

• The list of ingredients should include all ingredients and other substances present in the food

• Any ingredient used in production and still present in the finished food, even if in altered form, and listed in the allergen Annex, shall be clearly indicated on labels

These rules also apply to alcoholic beverages

Industry should not abuse of overlabelling: “may contain peanuts..”
Amendments to Directive 2000/13/EC as regards Ingredients Present in Foodstuffs (2)

A list of allergens has been established, and shall be regularly updated:

Fish; crustaceans; eggs; milk & dairy products (including lactose); cereals containing gluten (i.e. wheat, rye, barley, oats, etc); peanuts; soybeans; tree nuts; celery; mustard; sesame seeds; some fruits; and the products derived from these foods. SO₂ or sulphites ≥ 10 mg/kg

Some derived products are temporarily exempted from declaration

It is now forbidden:

to indicate an ingredient only by the name of the category to which it belongs (e.g. “vegetable oil”, “fish”, “crystallised fruit”, “vegetables”, “natural flavour”)

Limits of Application


However, it has been recently ruled that food exported from the Community for placing on the market of a 3rd country shall comply with the relevant requirements of Community law

Member States may not forbid trade in foodstuffs which comply with this Directive, except on the basis of:

• Protection of public health
• Prevention of fraud
• Protection of industrial and commercial property rights, indication of provenance, registered designations of origin and prevention of unfair competition
Supplementary Labelling Provisions

Packaging in protective atmospheres

Sweeteners

Vegetable origin of starch

For products containing meat as an ingredient, the category name “meat” is specifically defined

Any irradiated ingredient must be declared


Food contact materials (active packaging; intelligent packaging)

(Directive 2004/19/EC of 1 March 2004 amending Directive 2002/72/EC relating to plastic materials and articles intended to come into contact with foodstuffs)

(Regulation 2004/1935/EC of 27 Oct. 2004 on materials and articles intended to come into contact with food)

Foods with added phytosterols

(Regulation 2004/608/EC of 31 March 2004 concerning the labelling of foods and food ingredients with added phytosterols, phytosterol esters, phytostanols and/or phytostanol esters).

Specific Labelling Rules in “Vertical” Food Composition Directives

Objectives: harmonise national laws which define specific foodstuffs; improve the market organisation of these products; inform consumers

In some food sectors:

• Cocoa & chocolate products
• Coffee & chicory extracts
• Certain preserved milks
• Edible caseins & caseinates
• Honey
• Certain sugars
• Fruit jams, jellies & marmalades
• Fruit juices & similar products
• Erucic acid (level in edible oils)
• Products with caffeine or quinine

7 of these Directives have been simplified and updated in 1999-2001.

They define the specific products, assign each one a legal name which must be used (only if the product meets the compositional definition).
Specific Labelling Rules in “Marketing” Regulations (Common Agricultural Policy)

**Objectives:** improve agricultural markets; protect the interests of the producers; help consumers identify foods which may differ in quality (define compulsory names, standards, grade by quality class, indicate country of origin); ensure traceability

**In the case of:** eggs; poultry; **bovine meat**; fruit and vegetables; milk & milk products; butter, margarine & spreadable fats; oils, olive oil; wine & spirit drinks.

**Additional labelling requirements** may concern variety, production method (ex. free range animals, chemical inputs), condition of the food (fresh, frozen), date-marking, weight, price indications, size of letters.

Requirements may be redundant with horizontal Directive 2000/13/EC

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Foods with a Community Certificate of Specific Character such as “Traditional Speciality Guaranteed” (TSG)


**Objectives:** encourage diversification of agricultural production. Registered names are protected against unfair competition. A 3rd country may also apply for such a certificate, on the initiative of its producers

**Conditions:** in order to be certified, the foodstuff must possess specific characteristics which distinguish it clearly from similar products in the same category:

- characteristics due to **raw materials and/or production methods,**
  - but not to provenance or application of a technological innovation

**Examples:** Mozzarella cheese; Serrano ham; Gueuze Lambic beer; moutarde de Dijon

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Protected Geographical Indications
& Protected Designations of Origin


Objectives: protect geographical indications and designations of origin so as to add value to certain specific high-quality agricultural products and foodstuffs from a demarcated geographical area. To promote the diversification of agricultural production.

Definitions: The name of a place, region, or country describing a product originating there, and possessing characteristics, quality, or fame attributable to the geographical environment.

PDO: firm, proven link between product quality and the inherent natural and human factors in its region of origin.

PGI: the product possesses a specific reputation or characteristics which are attributable to its geographical origin.

Responding to precise specifications. Subjected to regular inspection.

Examples: cheeses: Roquefort, Parmigiano Reggiano; Parma ham…

European Quality Labels

Protected Designation of Origin (PDO)
Protected Geographical Indication (PGI)
Traditional Speciality Guaranteed (TSG)

Pending question: should there be a label “Made in the EU”? 

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### Why Protected Foodstuffs?

- Encourage diverse agricultural production and specific high quality products (keys to cultural heritage, traditional methods, natural resources); **protect biological diversity**
- Protect product names from misuses and imitations (fair trade)
- Inform consumers of the specific characters of the products and gain consumer trust (perceived as origin and quality indicators)
- Add value to the products (~10% premium), as other brands do; promote exports

**Over 4800 existing GI in the EU:**

- Main pillar of EU’s quality policy, at a time when agricultural subventions are reduced.

Some problems at the international level
But recent agreement on wines between EU and USA

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### Organically Grown Agricultural Products and Foodstuffs (~ 3.4% of European agricultural lands)


**Objectives:** Respond to the concerns of some consumers. Support quality products. Deliver environmental & rural development benefits. Improve animal welfare.

**Harmonised framework and standards** for the labelling, production and inspection of agricultural products (animal or vegetal, non GMO) which bear indications referring to the organic production method. Europe represents over 50% of the organic world market. However Member States have different rules for different labels.

**Protection of terms** used to inform the consumer (by advertisement or label) that a food or a feed, or its ingredients, have been obtained in compliance with the organic production method.

The term **BIO** should be used only for “organic” products
Fair Trade (~0.02% of world trade)

Objectives
To pay a fair price to small producers for their food commodities.
Securing their rights; ensuring the transparency of transactions; prepaying the season production; ensuring export markets; funding training for cooperative action & access to markets; promotion of good environmental & social practices

International Labels
Max Havelaar, Fairtrade, Transfair, all managed by an NGO, the Fairtrade Labelling Organisation (Flo International), Netherlands. These labels are certified by Flo Cert, Germany, according to ISO 65 Standard.

Applications
Coffee, tea, cocoa, chocolate, bananas, cotton... Higher prices, but certified for fairness and quality. Promoted by some hotels, restaurants...

Other “fair labels” are now offered by a number of retailers (for profit & image motivations). Therefore:
A common European standard and label is needed to avoid confusion

Main Quality Identification Signs (France)
The Novel Food Regulation

European Parliament and Council Regulation
97/258/EC of 27 January 1997
on novel foods and novel food ingredients

Commission Recommendation 97/618/EC of 29 July 1997 (OJ L 253, 16.9.1997) concerning the scientific aspects and the presentation of information necessary to support applications for the placing on the market of novel foods and novel food ingredients and the preparation of initial assessment reports under Regulation 97/258/EC.

Labelling Rules for Novel Foods

The 97/258/EC Regulation subjects each “novel food” to a severe pre-marketing approval procedure, motivated primarily by safety.

A simplified “notification” procedure exists if the product is “substantially equivalent” to an existing food (evidence provided by company and assessed by a MS competent authority), and contains no transgenic DNA or protein.

In addition to current labelling rules, the supplier of the novel food must give specific additional labelling to inform the final consumer:

1) of any characteristic (composition, nutritional value or effects, intended use) which renders a novel food or food ingredient no longer equivalent to an existing food

2) of the presence in the novel food or food ingredient of material not present in an existing equivalent food and which may have health implications for some sections of the population (or which may give rise to ethical concern);
Principles of the Novel Food Regulation

Definitions and categories of novel foods: a food not used for human consumption to a significant degree within the Community before May 15, 1997 (if known elsewhere before: are there enough data to confirm history of safe use?). A new or modified molecular structure or ingredient isolated from animals, plants, micro-organisms, fungi, algae. Separate regulations now established for genetically modified foods.

Foods subjected to new processes: Foods & food ingredients subjected to a process not previously used currently; new production process resulting in significant changes in composition or structure, in nutritive value, metabolic effect and/or level of undesirable substance.

Outside scope: additives, flavours, extraction solvents, food supplements, & (in the future) new “functional foods”

Accepted principles for authorisation: no “unacceptable” risk; no misleading the consumer; no displacement of useful food or nutrition pattern. Benefit should be considered too.

Problem: How to control sales of unauthorised novel foods (exotic foods, foods used in traditional medicine, ethnic foods in health stores)?

Regulations Concerning Genetically Modified Food and Feed


Commission Regulation 2004/641/EC of 6 April 2004 (OJ L 102, 7.4.2004, p. 14-26) on detailed rules for the implementation of Regulation 2003/1829/EC as regards the application for the authorisation of new GM food and feed, the notification of existing products and adventitious or technically unavoidable presence of GM material which has benefited from a favourable risk evaluation.

Recent Rules for Genetically Modified Foods

GM foods or feeds are only authorised for placing on EU markets after a strict scientific evaluation (under EFSA) of any risks which they present for human & animal health (and the environment), followed by a risk management decision by the Commission & the MS.

Objectives and principles:
• safe for the consumer & environment
• not misleading for the purchaser (nature, properties, composition, mode of production & manufacturing of the foodstuff)
• allow the consumer to choose whether or not to eat GM foods
• no nutritional disadvantage by displacing other foods

Also applies to: food ingredients & additives, flavourings, feed materials & feed additives containing, consisting of or produced from GMOs.

Excluded from the rules: GM processing aids; foods & feeds made with the help of a GM processing aid (e.g. enzyme, micro-organism); products (e.g. meat, milk, eggs) obtained from animals fed with GM feed or treated with GM drugs.

Recent Labelling Rules for GM Foods (2)

Labelling is mandatory to inform consumers and operators:

1) whether the food or feed consists of, contains or is produced from GMOs

2) of any characteristic or property which makes the food or feed different from its conventional counterpart with respect to composition, nutritional value or effects, intended use, health effects for certain sections of the population; ethical or religious concern

3) labelling shall also permit traceability, making relevant information (including identity of operators + “unique identifier” of GMO) available in writing at each stage of placing on the market, and for 5 years

The presence of GM ingredients in foods or feeds for humans or animals must be indicated on the label

This applies also for GM ingredients free of DNA or protein, such as refined vegetable oils, glucose syrups, or vitamins (and foods containing these ingredients)

Thus, substantial equivalence does not exempt from labelling
Recent Rules for GM Foods (3)

Exemption from labelling & traceability requirements is permitted up to a maximum threshold of 0.9% of GM ingredient in the food

• provided the presence of traces of GM material is adventitious or technically unavoidable during seed production, cultivation, harvest, transport or processing, and

• provided the concerned GMO has been authorised in the EU.

≤ 0.5% if the GMO has only received a favourable opinion from a Community scientific authority.

These exemptions exclude any deliberate introduction of GM product, and require that adequate measures have been taken to avoid the presence of GMO or GM ingredient.

How to label: detailed indications...

The indication “without GMO” is not recommended on food or feed labels

Recent Rules for GMO and GM Foods (4)

The temporary European ban (1999) on genetically modified foods & feeds has been lifted after the new labelling and traceability rules came into effect on April 18, 2004.

However, most European consumers do not want to eat GMO-containing foods and therefore food manufacturers and retailers do not produce or offer such foods.

Co-existence of GM, non-GM, and organic crops.
Contamination of traditional fields and crops by GM crops would prevent consumer choice and compliance with labelling & purity standards, and cause potential economic losses. This is one of the main causes for resistance to GMO in Europe.
Recent Issues on GMO and GM Foods

Several stakeholders have expressed doubts concerning the new GMO regulations:

1) the lowest level that can reliably be enforced is often close to 1%
2) the rules are not a safety issue (other procedures exist for safety assessment) but concern consumer choice and confidence in product labels. The requirement to label derived products (issued from GMO but without any GM material) opens the door to fraud (since detection is not possible) and will therefore undermine consumer confidence;
3) the economic impact of these rules should be assessed, especially for developing countries;
4) GM products on the market and enforcement actions taken by M.S. to ensure compliance should be reviewed;
5) should meat and milk obtained from animals fed with GM feeds also be labelled, as requested by some consumers’ associations?
6) what about products obtained by fermentation using GM micro-organisms?

Traceability

A 13-digit European article number (EAN) bar code is often used on the packaging for product and manufacturer identification.

In the near future, radiofrequency identification tags (RFID) may be used, with an electronic product code (EPC). Corresponding information will be stored in an electronic data system.
Traceability (2)

“Identity, track and trace”

Manufacturers and Retailers’ Responsibilities

Food labelling is costly, and further expenses are incurred when the labelling is not appropriate (not to speak of adverse publicity).

Persons in the food chain may be charged with a labelling liability offence.

Food labelling should be part of the total quality control system, and qualified persons should be in charge of labelling.

Rules for specific products, precise wording, foreign terms, precise composition limits, verification procedures, must be respected.

Small changes in product recipes may cancel label and calculation compliance with definition and ingredient/additive declaration rules.

EU Labelling rules are not fully consolidated, still subject to changes, and should be checked also in Directives for specific foods, Regulations for additives and in some cases National laws.

Dialogue and co-operation with enforcement authorities are recommended.
Recent Evaluation of the Food Labelling Legislation
(18 Oct. 2003)

Requested by DG SANCO from an European Evaluation Consortium

Objectives:
• Assess effectiveness and legal basis of the labelling policy
• Suggest improvements to better address the needs & expectations of today’s consumers
• Investigate alternative means of communication
• Address the feasibility of implementation by industry

Conclusions:  • Too many exemptions or unclear, subjective rules  • Non consistency of various rules, and differing national implementation provisions  • Cost & complexity for industry, esp. SME
• Extend mandatory origin labelling to primary products (e.g. various meats, fresh & perishable foods…)  • Give more info on non pre-packaged food (retail & catering): origin, allergens, durability
• Consumer interest for production processes (e.g. previously frozen; post-harvest pesticides; carry-over additives)  • More info needed (/front of pack, symbols, point of sale ?) to explain ingredients & additives, insist on durability dates (also after package is open)  • Avoid e-marks  • More quantitative info on ingredients  • More voluntary info is useful, without additional legislation (except for “fresh”)  • EU code of practice for “natural”, “pure”, “traditional”?  • A standard EU food coding system using colour & symbols would be useful

Recent Evaluation of the Food Labelling Legislation (2)

Conclusions (continued):  • Give key info for purchase (durability dates, allergen, change of recipe, weight, origin…) on front of pack, clearly visible (size, colour, contrast)  • Multi-lingual info not useful because of small space on labels  • Further voluntary info welcome, in terms of contents (company, process…) and of means (help lines, leaflets, in store, TV, websites…)  • High level of consumer interest in nutrition labelling  • No key conclusions on preferred presentation of foodstuffs in shops  • Preferences for info depend on product type: full range of info needed for frozen, chilled and fresh foods, much less for canned, dried, bakery and other shelf-stable foods.

Main recommendations:
• Harmonise implementation, simplify & update existing legislation
• Eliminate inconsistencies
• Action to ensure that local authorities enforce legislation across EU
• Develop an EU-wide food coding system with colour and symbols.

Trends at the European Commission level:
• Consolidate legislation; make it clearer, more coherent and flexible
• Use Regulations more than Directives, for uniform implementation
• Respond to consumers and retailers’ requests
• Increase the scientific substantiation of information
• Increase food safety and quality
Main European Directive on Nutrition Labelling

(OJ L 276, 6.10.1990, p. 40-44)
on nutrition labelling for foodstuffs

Nutrition Labelling and Claims

Specific Motivations: growing public interest in the long term link between diet, lifestyle and health. Pressure from consumer groups, government policy, supermarket chains, product manufacturers

Statute: Not compulsory unless a nutrition (or health) claim is made on the label or in presentation or advertising material of a food. Must be standardised, clearly visible, legible, indelible, easy to understand. Introduced gradually. Will be reviewed and probably amended

Applies to all foods and drinks for the ultimate consumer (and mass caterers) except mineral waters, drinking waters and food supplements

Nutrition labelling is defined as any information on the label referring to the energy value of the food, or to protein, carbohydrate, fat, dietary fibre, sodium or to other minerals or vitamins listed in the Annex

Nutrition claim is defined as any representation or message which states, suggests or implies that a food has particular nutrition properties relating to energy value or to its nutrients
Rules for Nutrition Labelling

Must be given in one of two basic formats (in one place, preferably as a table with numbers aligned, in the stated order):

Group 1: energy values in kJ or kcal and the amount of protein, carbohydrate and fat in grams (Big 4);

Group 2: same + sugars, saturated fat, fibre & sodium, in grams (Little 4)

Group 1 format cannot be used if any one of the Group 2 nutrient is claimed.

Both Groups can be extended to include starch, polyols, vitamins and minerals, mono-unsaturates, polyunsaturates and cholesterol.

If any of the last 3 is mentioned, the amount of saturates should also be given. Special rules apply for trans-fatty acids.

Rules for Nutrition Labelling (2)

Quantities must be expressed per 100 g or 100 ml of the food, and may be given also per serving or per portion.

They should be related to the food as sold or as consumed (if preparation indication is given).

Quantities of vitamins and minerals must also be given as % of Recommended Daily Allowances, and cannot be given unless the food contains (per 100 g or in a package with one serving) ≥ 15% of the relevant RDA (this rule is criticised).
Some Issues in Nutrition Labelling

• **Used on many prepackaged foods** (80% in the UK)

• **Difficult and costly**: Not enough space on labels. Should follow a standardised format (for comparing foods easily). Data must be precisely established by calculation (composition tables, data bases, energy conversion factors) & analysis. Average values should be given, within natural variation. Check for recipe changes.

• **Transposition into National laws and implementation in Member States** is not uniform

• **Does not meet consumer expectations.**
  
  UK surveys suggests:
  - large print, simple layout, no decimals.
  - use “Calorie” (joules, RDA, carbohydrates … not clear).
  - use “per serving” (per slice, half-pack, teaspoon…) before per 100 g.
  - focus on fat & energy levels (target groups: weight loss).
  - stress eating patterns.
  - label also non-prepackaged foods…

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**Nutrition labelling**

**Plans for signposting**

(Food Standards Agency, UK)
Nutrition labelling

Plans for signposting

(Food Standards Agency, UK)

GDA = guideline daily amount

Nutrition Labelling: Legislation in Preparation


Questions:
- How does the present legislation work in practice?
- Should nutrition labelling become compulsory?
- Which key nutrient information to give? Which format?
- Which reference quantity? Margins of tolerance?
- How to link with other nutritional recommendations?
- Which measures for non-prepackaged foodstuffs, and catering?
- Possible economic, social and public health impact?

Comments from more than 70 interested parties (industry, consumer and other groups) are available (also for nutrition & health claims).
http://europa.eu.int/comm/food/food/labellingnutrition/resources/links_en.htm
Nutrition Labelling: Legislation in Preparation

Objectives:

• facilitate consumer understanding and informed dietary choice, adapted to their individual needs

• identify and pursue solutions to the obesity problem, in particular among young people

• promote overall well-being by encouraging positive behavioural change (healthy diet & lifestyles)

• contribute to the management of public health costs.

Discussions also constitute a support for proposals regarding claims and the addition of nutrients to foods.

Nutrition and Health Claims

Medicinal/therapeutic claims expressing or implying that a food can prevent, treat or cure a human disease are prohibited (on the food label or in any promotion or advertisement). Confusion between food and medicine must be avoided.

Three main types of potential nutrition/health claims:

1) Nutrient content claim (or comparative content claim): presence/absence/level of nutrient in a food. “low fat”; “sugar free”; “source of protein”; “increased calcium”.

2) Nutrient function claim: beneficial physiological role in growth, development and normal functions. “calcium aids in the development of strong bones & teeth”; “vitamin B6 is important for the maintenance of a healthy nervous system”; “vitamin E protects the fat in body tissues from oxidation”;

3) Specific health claim: the consumption of a food has a specific health benefit or avoids a specific health detriment (reduction of a disease risk factor).

These claims are the basis for the Functional food concept (foods containing fibre, antioxidants, probiotics…).
Some National Rules for Nutrition/ Health Claims

Voluntary claims

These claims are strong marketing incentives for the food industry, but must be strictly controlled to maintain consumer confidence.

No European rules yet, but 6 countries have national rules/codes of practice and/or advisory bodies

In all cases, substantiation must be provided for the claim, based on scientific evidence.

A nutrient function claim or a nutrient related health claim usually requires nutrition labelling.

Nutrient function claims possible only for products that contain a significant amount (≥15% of RDA per 100 g or 100 ml) of the nutrient.

Nutrition and Health Claims: Future Regulation

Proposal for a Regulation of the European Parliament and of the Council on nutrition and health claims made on foods

COM 2003/424 – COD 2003/165

Objectives:

• consumer protection through further voluntary information
• free movement of goods within the internal market
• legal security for economic operators
• fair competition
• higher competitiveness of food industries
• promotion and protection of innovation

Applicants would have to submit a dossier to the European Food Safety Authority (EFSA) with:

1) Scientific substantiation of the highest possible standard:

Well controlled clinical studies on human volunteers, independent and peer-reviewed; substance in a form bioavailable to the body; effective with the product as presented to the consumer; with a reproducible and lasting effect; resistant to processing and storage; relevant to normal consumption (amounts, frequency) by the target population; relevant use within a nutritionally adequate diet; in agreement with official dietary guidelines; pre-market monitoring and trial period.
Nutrition and Health Claims: Future Regulation

2) Meaningful non-misleading messages to consumers:
on labelling (words, picture, graph, logo, symbol, endorsement),
on advertising, marketing & promotion.

Clear, accurate & meaningful (for the “average consumer”).

- State the importance of a varied and balanced diet and of a healthy lifestyle
- Do not imply that ordinary foods are not adequate
- Indicate the quantity of the food and pattern of consumption required to obtain the claimed beneficial effect
- Safe upper limit or RDA
- Warning to consumer groups who should avoid it
- Comparative claims should clearly indicate the foods being compared

Messages to consumers (continued)

- No reference to the rate or amount of weight loss nor to reduction/increase in the sense of hunger/satiety

- No claims for alcoholic beverages nor for foods with “unhealthy” nutrient profile (rich in fats, saturated fats, trans fatty acids, salt/sodium, sugars), depending on their place in the overall diet

- Not imply excessive benefits
- No reference to non specific benefits for overall good health or well-being
- State that diseases have multiple risk factors
- Avoid overstressing the risk of a disease
- No reference to the advice or endorsement of health professionals
- No psychological or behavioural claim
- Not deter from adequate medical treatment
Nutrition and Health Claims: Future Regulation

- The Regulation would apply to the labelling, presentation and advertising of foods to be delivered to the final consumer, and to foods intended for supply to restaurants and other mass caterers.

- Where a nutrition or health claim is made, nutrition information shall be provided, in accordance to Directive 90/496/EEC. For health claims, the nutrition information to be provided should be extensive, as indicated in Group 2, Article 4(1) of the Directive.

- The scope of the claim should be defined by the applicant: substance, ingredient, mixture of nutrients, food, category of foods

A food is preferred to a substance, because the food matrix may influence the bioavailability of bioactive substances. However, the number of applications for foods could be excessive.

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Nutrition and Health Claims: Future Regulation

- Strict & long authorisation procedure
  European Food Safety Authority (EFSA), Commission, Member States, Public opinion…

- Main criteria for acceptance:
  1) safe (no adverse effect)
  2) does not change desirable eating patterns
  3) not misleading
  4) beneficial

- The Commission would first adopt a Community list of authorised claims, after consulting the M.S.

- A “Community Register of nutrition and health claims made on food” would later list the authorised nutrition and health claims, and also the rejected health claims, and would be regularly revised
**Nutrition and Health Claims: Future Regulation** (6)

On May 25, 2005, the European Parliament has voted against some of the proposal principles, suggesting:

1. That nutrition and health claims do not have to be based on the real and global nutritional value of the food because there are no “good or bad” foods but only good or bad diets

2. That health claims should not require prior authorisation, and that a notification procedure should be sufficient

These suggestions reflect the views of the food industry. They mean that scientific substantiation of the claims would not be required.

Consumer associations strongly oppose these suggestions. The Council of (Health) Ministers, on 3 June, has indeed rejected them, maintaining that claims are acceptable only for foods with a minimum nutritional profile (based on low fat, sugar and salt contents), and that prior authorisation by EFSA is needed. The Parliament will vote again in December.

The “bad food” controversy has led to several law projects in France, concerning messages and a tax on radio & TV advertising of foods, exclusion of vending machines in schools, and messages on wine labels.

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**Some Questions**

- Does the consumer see, read or understand what is in a food label?
- Does he trust what he reads on a label?
- Is he suspicious about modern food technology and only trust brands and quality marks?
- Does he accept to pay the extra cost of foods with health claims?
- Does nutrition labelling induce choices for better diets and better health?
- Aren’t health claims, food supplements and fortified foods contradicting one of the implicit messages of nutrition labelling, i.e. that a balanced diet can be attained with conventional foods?
- Does the knowledge on nutrition increase?
- Will nutrition-related diseases decrease?
French Consumers’ Survey, 2004
(Association Consommation, logement et cadre de vie)

Importance given to food label information at time of purchase
(in % of consumers, out of 870 consumers)

- Price: 88.7% (84%)
- Brand: 75.2%
- Date of durability: 70.8% (90%)
- Place of origin: 65.6% (27%)
- Net weight, amount: 49.3%
- Fat content: 23.1% (Ingredients: 54%)
- Instructions for use: 19.5% (42%)

Interest for nutrition labelling information

- Active interest: 21.9% (for a balanced diet: 82.2%)
- Occasional interest: 41.3%
- Not much interest: 29.1% out of curiosity:
- No interest: 7.7% 14.8%

Final Comments

- Food and nutrition labelling is only a part of European food laws
- It is diverse and complex because of the different objectives and requests from the various stakeholders: European & national authorities; scientists; agricultural lobbies; large food groups; SME; retail groups; various professional associations; consumer associations; media; public opinion
- Complexity has detrimental aspects, such as the cost for food manufacturers and the problems of control and enforcement for national and European authorities; However the beneficial aspects of safety and information compensate for these drawbacks
- Food label information is likely to increase due both to problems (food scares, contaminants, obesity…) and to new developments (health-related foods, innovative food technologies)
- The new principle of transparency & public consultation will require alternative channels of information, communication and training (panels in supermarket; leaflets; call centres; community-based info; storage in e-code, for reading with cell phone or computer; database; websites; radio and TV)
- Globalisation of food trade will accelerate the adoption of international standards
WEB SITES

• **European Union Legislation:**
  CELEX, the official legal database of the European Union
  [http://europa.eu.int/celex/](http://europa.eu.int/celex/) is available in all official EU languages,
  It contains 2 search interfaces: Menu search (free) & Expert search (subscription). The CELEX coverage is also available on the web through the EUR-LEX portal (simpler tool)
  [http://europa.eu.int/eur-lex/](http://europa.eu.int/eur-lex/)
  in Legislation/ Directory of Community legislation in force,
  check subsections: 03.60; 13.30.14; 15.20.20; 15.20.30.
  Also check Legislation in preparation; Case-Law; Parliamentary questions; Documents of public interest…
  [http://europa.eu.int/scadplus/leg/](http://europa.eu.int/scadplus/leg/) see Summaries of legislation
  [http://europa.eu.int/comm](http://europa.eu.int/comm) see Index

• **Codex Alimentarius:** e-mail: Codex@FAO.org
  publications-sales@FAO.org
  [http://www.codexalimentarius.net](http://www.codexalimentarius.net)

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**Short Bibliography**


**Food Labelling.** J. R. Blanchfield, Ed., CRC Press, Boca Raton, FL, 2002


**Food labelling in the EU and consumers information.**


### Annex

**Proposed nutrition claims**

- Low energy; Energy-reduced; Energy-free
- Low fat; Fat-free; Low saturated fat; Saturated fat-free
- Low sugars; Sugars-free; With no added sugars
- Low sodium/salt; Sodium-free or salt-free
- Source of fibre; High fibre
- Source of protein; High protein
- Natural source of vitamins and/or minerals; Enriched or fortified in vitamins and/or minerals; High vitamins and/or minerals
- Contains (name of the nutrient or other substance)
- Increased (name of the macronutrient)
- Reduced (name of the nutrient)
- Light/lite

2 examples of acceptable health claims (Sweden):
1) “Iron deficiency is common among women but can be prevented by good dietary habits. Product X is an important source of the type of iron that is readily absorbed by the body”.
2) “Omega-3 fatty acids have a positive effect on blood lipid and can therefore help protect against cardiovascular disease. Fish product X is rich in omega-3 fatty acids”.

### Annex

**Other European Directives related to Nutrition Labelling**


Annex  

Directives on Foodstuffs Intended for Particular Nutritional Uses


Definitions

See Directive 2000/13/EC

“Labelling”: any words, particulars, trade marks, brand name, pictorial matter or symbol relating to a foodstuff and placed on any packaging, document, notice, label, ring or collar accompanying or referring to such foodstuff

“Pre-packaged foodstuff”

“Ingredient”, “food additive”, “processing aid”
Annex How to view European Regulations and Directives Concerning Food Labelling and Nutrition Labelling

Reduce public health expenses
Improve eating patterns for better health and well-being
Help consumers take informed decisions
Protect the consumer

Improve product safety, quality & convenience
Contribute to fair international trade
Respect consumer concerns and requests for true & clear information
Enjoy common E.U. legislation for free trade between 25 countries

Improve the organisation of the distribution chain
Respect the rules to avoid frauds, penalties and product recalls
Seize opportunities for non misleading efficient advertising to help sell products

Annex European Vertical Regulations and Directives Related to Food Labelling


Annex Other Regulations and Directives Related to Food Labelling


Annex Regulations and Directives Related to the Labelling of Meat and Beef

Regulation 2000/1760/EC of 17. 7. 2000 and Regulation 2000/1825/EC of 25. 8. 2000, establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products. From January 2002, in order to give the consumers more detailed information on the beef on sale, the beef label will have to include information about where the animal was born, raised, slaughtered and cut, plus a traceability number and the approval numbers of slaughterhouse and of cutting plant. This applies to all fresh and frozen beef, including minced beef.

Directive 2001/101/EC of 26 Nov. 2001 (OJ L 130, 28.11.2001) Restricts the definition of meat to the skeletal-attached muscles. Other parts such as offal or fat or mechanically-separated meat will have to be labelled as such. Defines labelling requirements for foods which contain meat as an ingredient (sausages and preserved meat products). Harmonised method for determining the meat content. Maximum limits for the fat and connective tissue content of products which may be designated by the category name “meat”. Requires the systematic indication of the species from which the meat comes.

Annex

Beef Meat Label (France)

VIANDE BOVINE • FAUX FILET

ORIGINE: France
N° agrément de l’abattoir: 00 00000
Lieu de découpe: France 00 00000

Emballé le: 00 00 00
A consommer jusqu’au: 00 00 00
à conserver entre 0°C et +4°C

Prix au kg 00,00 €
Poids net 00,000 kg
Prix à payer 00,00 €

CATEGORIE: Vache
TYPE: Viande
LOT: 000000

00 rue de la Seine 75000 Paris

CEE

Annex

Lamb Meat Label (France)
Annex

Directives on Natural Mineral Waters


• List of mineral waters recognised by the Member States (OJ C 41 of 14 Feb. 2002; OJ C 143 of 15 June 2002).


Annex

Main European Regulations Concerning Wines


Annex Directive on Fruit Juices and Similar Products


It gives common rules governing the composition, use of reserved descriptions, manufacturing specifications and labelling.

It should be clearly indicated when a product is a mixture of fruit juice and fruit juice from concentrate, and, for fruit nectar, when it is obtained entirely, or partly from 1 or more concentrated products. Use “made with concentrate(s)” or “partially made with concentrate(s)”, as appropriate. This info must be entered close to the product name, standing out well from any background, in clearly visible characters.

M.S. are free to authorise or prohibit the addition of vitamins and also minerals as part of the manufacturing process. However, the principle of the free movement of products should be respected.

Food labelling Directive 2000/13/EC shall apply to the products defined in Annex I, subject to some conditions: the product names listed in Annex I shall apply only to the products referred therein and shall be used in trade to designate them. Annex II provides some alternative designations.

Annex Directive on Fruit Juices and Similar Products (2)

For products from 1 fruit, use the name of the fruit. From ≥ 2 fruits, add to the product name a list of the fruits, in descending order of the volume of the fruit juice or purée included (or by “several fruits”, or the number of fruits).

The addition of sugar must be indicated by “sweetened” or “with added sugar” followed by the maximum quantity of sugar added, in g dry matter per litre.

The addition of extra pulp or cells as defined in Annex II must be indicated.

For fruit nectars, indicate the minimum content of fruit juice, fruit purée or any mixture of these ingredients, by “fruit content:…% minimum”. This info must be in the same field of vision as the product name.

Only the treatments and substances listed in part II of Annex I and the raw materials complying with Annex II may be used to manufacture the products defined in part I of Annex I. Moreover, fruit nectars must comply with the provisions of Annex IV.
Annex European Regulations and Proposals Related to Food Hygiene and Safety


- Guidance on the implementation of articles 11, 12, 16, 17, 18, 19 and 20 of Regulation 2002/178/EC on general food law: http://europa.eu.int/comm/food/food/foodlaw/guidance/guidance_rev_7_en.pdf


- In some cases, a “health mark” may be required (meaning a mark applied by or under the responsibility of the Official veterinarian indicating that all the requirements of the relevant Regulation have been met).

- In some cases, establishments may have to be approved. Approved establishments shall be given an approval number to which codes shall be added to indicate the types of products of animal origin manufactured.


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Annex Regulations and Proposals for Food Hygiene and Official Controls (2)


- In some cases, a “health mark” may be required (meaning a mark applied by or under the responsibility of the Official veterinarian indicating that all the requirements of the relevant Regulation have been met).

- In some cases, establishments may have to be approved. Approved establishments shall be given an approval number to which codes shall be added to indicate the types of products of animal origin manufactured.

Annex

Radio Identification Tags

- They associate 1) a memory, located in a microprocessor;
  2) a miniature antenna, able to transmit data by radio frequency; and 3) an energy production mechanism (no battery needed).
- The remote (no contact) reading device triggers the tag by sending an electro-magnetic field. The tag converts it into energy, being then able to send a radio signal containing all the required information.
- The control distance ranges from 10 cm to 10 m, depending on the radio wavelengths (4 international frequencies are permitted).
- The retailers Wal-Mart (USA) and Metro (D) already use these tags for stock control. The tags can be reprogrammed and reused.
- These tags are still too expensive (15-25 € each) for single use and food traceability. They are not yet 100% tamper-proof, and their signal can be modified by liquids or by some metal surfaces.

Traceability

The need for a well documented traceability system has been emphasised in the food chain after the BSE crisis and the controversy about GMO.

Definition: the ability to identify & trace products and operators at all stages of the placing on the market (from sellers to buyers, from ingredients to final products, for each step of production, processing & distribution chains).

Objectives: Traceability is essential for good manufacturing practice (visibility of flows, reductions in stocks & delivery discrepancies), quality assurance, and product liability. It allows targeted monitoring of potential health & environmental effects, eases the implementation of risk management, provides a “safety net” (immediate reactivity) against unexpected adverse effects, and lesser losses in case of product recall. It also improves transparency and control in labelling and claims, and increases consumer confidence.

Instruments: The usual labelling requirements should be completed by a batch code to identify the manufacturing plant, production line, hour, day and year of manufacturing, to permit tracing back to processing steps, recipes, raw materials, packaging materials, etc. The specified data should be transmitted by operators throughout the chain, and retained by these operators for a minimum of 3 or 5 years.
Annex

Traceability (2)

- According to Regulation EC/178/2002, and starting from 1 January 2005, the traceability of food, feed, food-producing animals, and any other substance intended to be, or expected to be, incorporated into a food or feed, shall be established at all stages of production, processing and distribution.
- Food and feed business operators shall be able to identify any person from whom they have been supplied with a food, a feed, a food-producing animal or any substance... (upstream traceability to product origin).
- Food and feed business operators shall have in place systems and procedures to identify the other businesses to which their products have been supplied (downstream traceability in view of product recall).
- This information shall be made available to the competent authorities on demand.
- This also applies to food, feed... imported into the European Union.

Questions for self control:

- Are you able to identify foods, feeds, ingredients... which you receive, process and send away?
- Do you systematically register the information associated to these foods, feeds, ingredients...?
- Do you have in place systems and procedures to identify suppliers and the products with which you have been supplied?
- Do you have in place systems and procedures to identify your clients and the products which you have supplied to them?
- Are you able to make available this information to the competent authorities on demand?
- In the case of an incident, are you able to withdraw from the market any one of the products which you have produced, processed or distributed?
Actimel

**Aidons nos Défenses Naturelles**

**BOISSON LACTÉE FERMENTÉE AROMATISÉE AVEC EDULCORANTS**

**Actimel®**

**L.CASEI DEFENSIS**

**Allégé en sucre 0%**

**Malt Cr**

**DANONE**

**19/08**

**SAUMON**

**Salmon**

**Pavés de Saumon de l'Atlantique**

**SAUMON ATLANTIQUE**

**Elevé en Atlantique Nord-Est**

**iglo**

**Valeurs Nutritionnelles**

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**Poids Net : 300 g**

*Remerciements à: Fabrice Le Bihan, Florent Le Page, Grégory Dechamps pour les photos.*
Vegetables

Andros
The Food and Drug Administration (FDA) of the USA has carried out an extensive Food Label and Package Survey (FLAPS) in 2000-2001, to monitor the food industry response to food labelling regulations.

1281 products from 238 product types representing 57 product groups were surveyed, to indicate the prevalence of nutrition labelling and of various health claims, the accuracy of product serving sizes, the extent of specific product ingredients, the prevalence of food safety and other consumer statements...