



Principles of Food and Feed Law in Europe

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Untreated Food



Treated Food



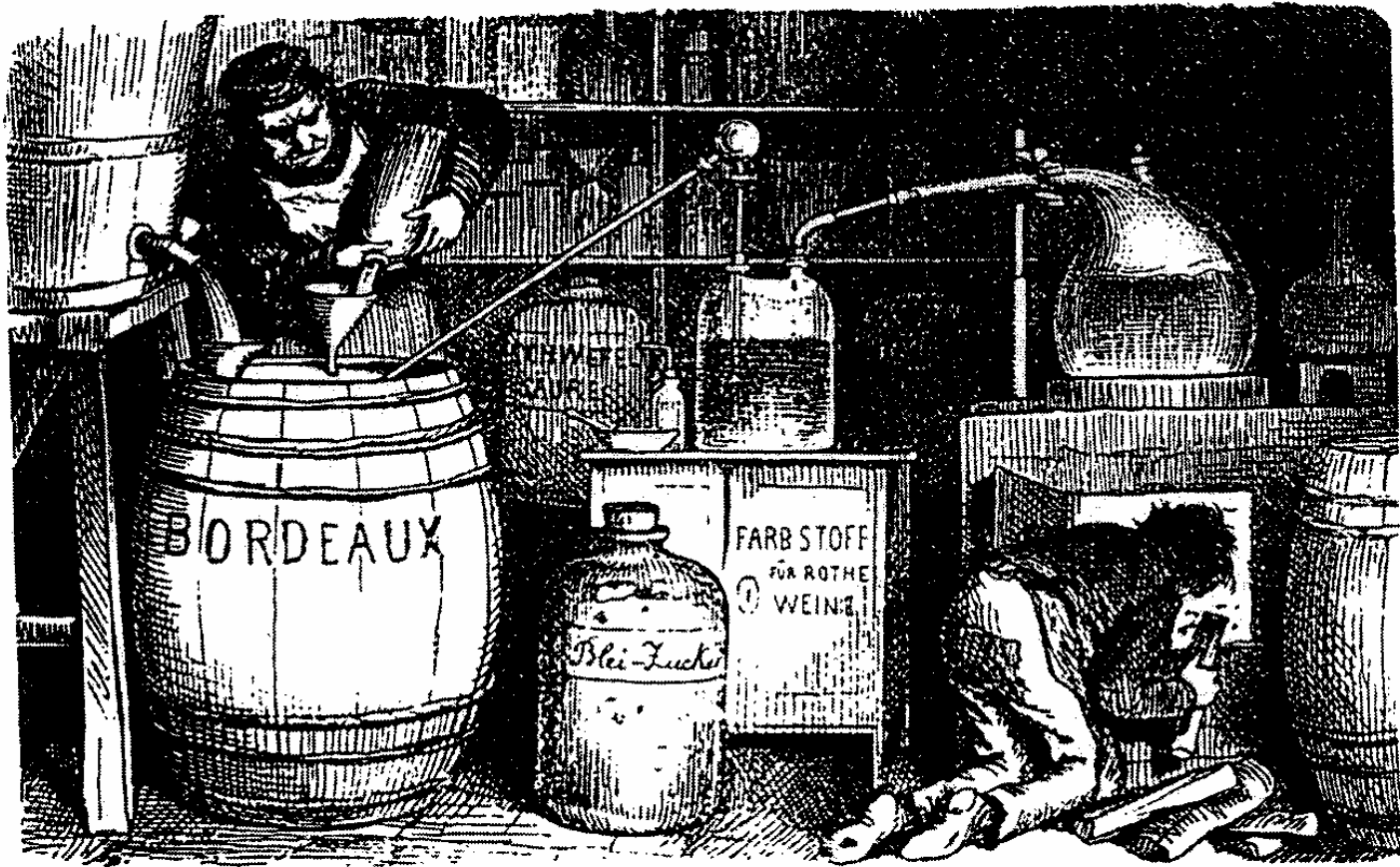


Prepared Food





**Du sollst das Fett Deines Nachbarn
nicht vergiften! Du sollst das Fett
Deines Nachbarn nicht verzaubern!**
(Hethiter, ca. 1600 v. Chr.)





Einige in Lebensmitteln vorkommende Mycotoxine



| Mycotoxine | Produzierende Mikroorganismen | Haupts. betroffene Lebensmittel | Giftwirkungen |
|------------------------------|---|---|--|
| Ochratoxin A | <i>Aspergillus ochrac.</i> , <i>Penicillium verrucosum</i> | Getreide, Bohnen, grüne Kaffeebohnen | Kanzerogen, teratogen, neurotox. nierenschädgd. |
| Patulin | <i>Penicillium patulum</i> , <i>Aspergillus clavatus</i> | Äpfel, Birnen, Bohnen, Weizen | Kanzerogen, mutag., leberschädgd. |
| Penicillin- säure | <i>Penicillium puberul.</i> , <i>Aspergillus ochrac.</i> | Mais, Gerste, Bohnen | Neurotoxisch |
| Sterigmatocystin | <i>Asperg. versicolor</i> , <i>Aspergillus nidulans</i> | <i>Getreide, Käse,</i> <i>gr. Kaffeebohnen</i> | Teratogen, hautrei- zend, kanzerogen |
| T-2 Toxin | <i>Fusarium sporotrichioides</i> | Mais, Gerste, Sorghum | Neurotoxin, hautreizend |
| Zearalenon | <i>Fusarium graminearum</i> | Getreide | Schleimhautreizend, estrogen, Unfrucht- barkeit verursachend |



Lebensmittelrechtliche Dachgesetze in Deutschland



1879 Nahrungsmittelgesetz:

Verbote und Ermächtigungen zum Schutz der Gesundheit und zum Schutz vor Täuschung.

Polizeiliche Befugnisse im Rahmen der Lebensmittelüberwachung.

Straffestsetzungen für Verstöße.



Lebensmittelrechtliche Dachgesetze in Deutschland



1927/36 Lebensmittelgesetz

**Regelungen zum Täuschungsschutz bei
Lebensmittelfarben.**

**Bestimmungen für Fleisch und Petroleum
entfallen.**

**Regelungen zur Anhörung von Sachkennern
und zum Entstehen von
Untersuchungsverfahren**



Lebensmittelchemische Dachgesetze in Deutschland



1958 Lebensmittelgesetz

***1974 Lebensmittel- und Bedarfsgegen-
stände-gesetz***

**Erweiterung der Gesundheitsschutz- und
Täuschungsschutzbestimmungen um
solche für Zusatzstoffe und andere neue
Technologien.**



Lebensmittelchemische Dachgesetze in Deutschland



**Tabakerzeugnisse, Kosmetische Mittel und
Bedarfsgegenstände ausführlich geregelt.
Arbeit der Lebensmittelbuchkommission
geregelt.**

***Seit 2005: Lebensmittel- und
Futtermittelgesetzbuch (LFGB)***



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General Food Law



Basis of the harmonisation of the national food laws is the mutual acceptance of food from different EC countries

- 1997: „Green book“ which contains general aspects of a food law in the EU;
- 2000: „White book“ concerning food safety aspects.
- 2002: „Basis regulation“ „General Food Law“ 178/2002 EC



General Food Law



On the 28th of January 2002 the European Parliament and the Council adopted [Regulation \(EC\)178/2002](#) laying down the General Principles and requirements of Food Law.

It lays down definitions, principles and obligations covering all stages of food/feed production and distribution.



General Food Law



Health Protection

- **Health** and **life** may not be damaged through food;
- It is not allowed to produce and / or to distribute food or food ingredients which produce **adverse health reactions**;



General Food Law



Main goals of the food and feed law:

- Protection of the consumer from
Health damages
Misleading
- Information about food
- Function of the EU-Market
- Protection of animals, plants and
environment

(VO-EG-178/2002)



General Food Law



Protection of the consumer from misleading includes

- Adulteration of food
- Wrong labelling
- Misleading advertising
- Prohibition of advertising related to diseases
- Prohibition of cheating with packaging



General Food Law



Legislation on Animal Feed

Rules on marketing and labelling of feed materials, of compound feedingstuffs, of feedingstuffs intended for particular nutritional purposes, of bioproteins and of genetically modified feed

Rules on authorisation, marketing and labelling of feed additives



General Food Law



Legislation on Animal Feed

- Rules on undesirable substances in feedingstuffs (mycotoxins, heavy metals etc.)
- Rules on approval and registration of animal feed
- Producing establishments
- Rules on official inspections in animal nutrition.



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Principles



General Objectives

The food law aims at ensuring a high level of **protection of human life and health**, taking into account the protection of animal health and welfare, plant health and the environment.

- This integrated **„farm to fork“** approach is now considered a general principle for EU food safety policy.



Principles



Aims

- Food law, both at national and EU level, establishes the **rights of consumers** to safe food and to accurate and honest information.
- The EU food law aims to harmonise existing national requirements in order to ensure the **free movement of food and feed** in the EU.



Principles



Aims

The food law recognises the EU's commitment to its international obligations and will be developed and adapted taking international standards into consideration, except where this might undermine the high level of consumer protection pursued by the EU.



Principles



Risk Analysis

The Regulation establishes the principles of risk analysis in relation to food and establishes the structures and mechanisms for the scientific and technical evaluations which are undertaken by the

**EUROPEAN FOOD SAFETY AUTHORITY
(EFSA)**



Principles



Risk Analysis

- Regulation EC 178/2002 establishes in EU law that the three inter-related components of risk analysis
 - risk assessment,
 - risk management,
 - risk communication

provide the basis for food law as appropriate to the measure under consideration.



Principles



Risk Analysis

Depending on the nature of the measure, food law, and in particular measures relating to food safety must be underpinned by **strong science**.

The EU has been at the forefront of the development of the risk analysis principles and their subsequent international acceptance.



Principles



Risk Management

Risk management is the process of weighing policy alternatives in the light of results of a risk assessment and, if required, selecting the appropriate actions necessary to **prevent, reduce or eliminate the risk** to ensure the high level of health protection determined as appropriate in the EU.



Principles



Risk Management

The decision makers need to consider a range of information in addition to the scientific risk assessment

- The feasibility of controlling a risk;
- The most effective risk reduction actions depending on the part of the food supply chain where the problem occurs;
- The practical arrangements needed;
- The socio-economic effects;
- The environmental impact.



Principles



Rapid Alert System for Food and Feed (RASFF)

- Member States (MS) should notify the RASFF immediately and in any event no later than it is made publicly available at national level.
- RASFF should be used to circulate all follow-up information on the incident.



Principles



RASFF - Science/ Analytical tests

- The RASFF notification of any newly identified problem should be accompanied or followed as soon as possible by any information available, such as **toxicological data, possible extent** of the problem, etc. This should not delay the RASFF notification.
- The RASFF notification concerning such a problem which requires testing should contain **the analytical method and sampling strategy** applied, for use by the other Member States.



Principles



RASFF

- Member States should not develop their own (possibly divergent) method but collaborate with the Member State having sent the initial notification.

Provided it is fit for purpose, the original method should be applied pending further refinements to be developed normally under the leadership of the notifying country.



Principles



Traceability

Regulation [178/2002 EC](#) defines traceability as the ability to trace and follow food, feed, and ingredients through all stages of production, processing and distribution.



Principles



Traceability

The **identification of the origin of feed and food ingredients and food sources** is of prime importance for the protection of consumers, particularly when products are found to be faulty. Traceability facilitates the withdrawal of foods and enables consumers to be provided with targeted and accurate information concerning implicated products.



Principles



Traceability

The Regulation contains general provisions for traceability (applicable from 1 January 2005) which cover all food and feed, all food and feed business operators, without prejudice to existing legislation on specific sectors such as beef, fish, GMOs etc. **Importers are similarly affected** as they will be required to identify from whom the product was exported in the country of origin.



Principles



Traceability

Unless specific provisions for further traceability exist, the requirement for traceability is limited to ensuring that businesses are at least able to identify the immediate supplier of the product in question and the immediate subsequent recipient, with the exemption of retailers to final consumers **(one step back-one step forward)**.



Principles



Transparency

- The consumer confidence is an essential outcome of a successful food policy, it is a primary goal of EC action related to food.
- Transparency of legislation and effective public consultation are essential elements of building this greater confidence.



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Definitions



Food

Food means any substance or product, whether processed, partially processed or unprocessed, intended to be, or reasonably expected to be ingested by humans.



Definitions



Food

Food includes drink, chewing gum and any substance, including water, intentionally incorporated into the food during its manufacture, preparation or treatment. It includes water after the point of compliance.



Definitions



Food does not include

- Feed;
- Live animals unless they are prepared for placing on the market for human consumption
- Plants prior to harvesting
- Medicinal products / Drugs
- Cosmetics, tobacco and tobacco products
- Narcotic or psychotropic substances
- Residues and contaminants
- Medical devices



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Harmonized EC-Food Laws



- **Maximum residue levels of veterinary drugs (Reg 2377/90/EC)**
- **Novel Food (Reg 258/97/EC)**
- **Genetically modified food (Reg 1829/2003; 1830/2003)**
- **Food for special/dietetic nutrition (Dir 89/398)**
- **Food supplements (Dir 2002/46)**
- **Ecological farming (Reg 2092/91/EC)**
- **Food labelling (Dir 2000/13/EC)**
- **Official food quality control (Reg 882/2004/EC)**



Harmonized EC-Food Laws



- **General food hygiene (Reg 852/2004/EC)**
- **Improved hygiene of food from animal origin (Reg 853/2004/EC)**
- **Food additives: they are generally forbidden with the exception that single food additives are allowed (Directives 89/107; 94/36; 95/2)**
- **Maximum residue levels of pesticides in food (Reg 396/2005/EC)**
- **Maximum residue levels of contaminants on food (heavy metals; nitrate, mycotoxins, dioxins, monochloropropandiol) (Reg 466/2001)**



Harmonized EC-Food Laws



- Rules concerning recipes for food production, especially concerning the quality of valuable food ingredients, are, however, not harmonized
- These rules remain in the responsibility of the member states! This means that food which may be sold in one of the member states is also allowed to be sold in other member states of the EC, in principle.



Harmonized EC Food Laws



Functional Food

Functional foods are foods which have additional health benefits compared to normal food.

These foods are not regulated in the EC.



Differentiation between food and drugs

Products which may serve both as food and drugs are no longer food but drugs

Directive 2004/27/EC

The differentiation between food and drugs is determined by the **main purpose** of the substances. If a product is used mainly because of its pharmacological effects, and to a lesser extent because of its nutritional and sensory value, then it is a drug and no food.



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Examples



Food supplements

Food supplements are concentrated sources of nutrients or other substances with a **nutritional or physiological effect** whose purpose is to **supplement the normal diet**. They are marketed 'in dose' form i.e. as pills, tablets, capsules, liquids in measured doses

They serve in addition to the normal food to meet the nutrition requirements at special situations which may **not be caused by diseases**

Directive 2002/46/EC



Examples



Food Supplements

Annex II of Directive 2002/46/EC is a list of permitted **vitamin or mineral preparations** that may be added for specific nutritional purposes in food supplements. The trade of products containing vitamins and minerals not listed in Annex II is prohibited since the 1st of August 2005.



Examples



Contaminants

Contaminants are substances that have **not been intentionally added to food.**

These substances may be present in food as a result of the various stages of its production, packaging, transport or holding.



Examples



Contaminants

They also might result from environmental contamination. Since contamination generally has a negative impact on the quality of food and may imply a risk to human health, the EU has taken measures to minimise contaminants in foodstuffs.

Proposals for maximum levels of other contaminants, such as Fusarium toxins (deoxynivalenol and other trichothecenes, zearalenone, fumonisins) are being considered.



Examples



Residues

To guarantee a high level of consumer protection, Community legislation requires that the toxicity of potential residues is evaluated before the use of a medicinal substance in food producing animals is authorised. If considered necessary, maximum residue limits (MRLs) are established and in some cases the use of the relevant substance is prohibited. The evaluation procedure is laid out in [Council Regulation \(EC\) 2377/90](#) of 26 June 1990.



Examples



Residues

For the purpose of residue control the European Union has created a network of laboratories. This network consists of **four Community Reference Laboratories (CRLs, designated in 96/23/EC), National Reference Laboratories (NRLs)** designed by each Member State and routine laboratories also responsibility of Member States.



Examples



Residues

Chemicals for which investigations are ongoing:

Acrylamide

Organotins - chemicals which can be found in water systems due to their presence in paints as anti-biofouling agents e.g. used on the hulls of ships and marine apparatus. Work is ongoing to clarify the possible presence and risks in food (SCOOP report)

Polycyclic Aromatic Hydrocarbons (PAH) - following the Opinion of the Scientific Committee on Food the Commission is developing legislation to set maximum levels in particular for benzo(a)pyrene in certain foods (Press release October 14th 2004). Data on the presence of PAH in foods has been collected by the Member States (SCOOP report & annexes : 1-5, 6, 7, 8-9).



Examples



Residues

The functions of the CRLs for the detection of residues in the veterinary public health field are defined in Annex V to Council Directive N° 96/23/EC and could be summarised as follows:

- to develop new analytical methods and validate them to be used as a reference, and keep informed the NRLs about the advances in methods and equipment;
- to assist NRLs by: helping them to implement quality assurance system, technical advice, training courses, comparative tests, identify residues in case - of disagreement between Member States;
- to provide the Commission with technical and scientific advice.



Examples



Food Additives

Food additives are substances added intentionally to foodstuffs to perform certain technological functions, for example to colour, to sweeten or to preserve.



Examples



Food Additives

Food additives are defined in Community legislation as "any substance not normally consumed as a food in itself and not normally used as a characteristic ingredient of food whether or not it has nutritive value, the intentional addition of which to food for a technological purpose results in it or its by-products becoming directly or indirectly a component of such foods". (for full definition see: Article 1(2) of [Directive 89/107/EEC](#)).



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Criticism and Praise



Criticism

The regulation is in some parts **incoherent** and creates **over-regulation** with inconsistent and impractical legal provisions.

Food enterprises as well as consumers are being **patronised**.



Criticism and Praise



Criticism

Science shall partially replace reason and common sense in legislation. Some examples:

- The definition of food cannot answer the question where the borderline between food and drugs run.
- The food safety requirements, namely a compulsory evaluation of long term effect on subsequent generations, are unfeasible in practice.



Criticism and Praise



Praise

- The goals of the Regulation are to be endorsed, including the concept of taking into account scientific research results.
- Particularly the flexible rules on traceability can serve as a model for future legislation.



Criticism and Praise



Proposals for Improvement:

- There must be effective and able supervising authorities, who are prepared to police, and a working sanctioning system.
- Consumers should be at liberty to choose products they trust provided the foodstuffs are acceptably safe.
- Science should continue to contribute knowlegde and advice.



Epilogue



Ein guter Forscher muss nach der Wahrheit streben und wissen, dass er ihr immer nur nahe kommen kann. Er muss Tatsachen anerkennen, gleichgültig, ob diese seinem Denken und seinen Wünschen entgegen kommen oder nicht, das heißt, er muss selbstlos sein. Und er muss die Fähigkeit haben, sich über das Naturgeschehen zu wundern und es zu bewundern



Criticism and Praise



Fundamental considerations

Policy should rather focus on better food education and promote healthy families in their legislative efforts.

Thank you for your attention!

